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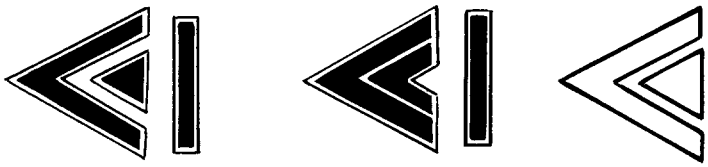
№39
(VOL.1)

MESSERSCHMITT Bf 109B,C,D,E

IN LUFTWAFFE & FOREIGN SERVICE



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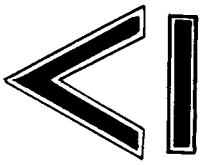

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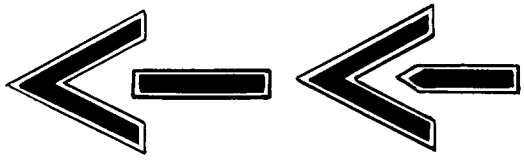

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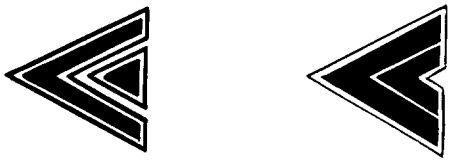

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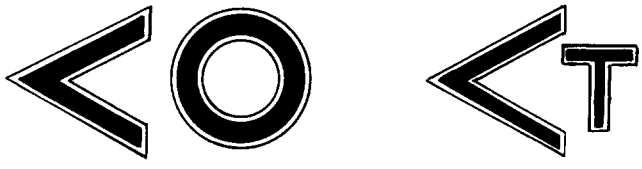

GRUPPEN-TO (Technical Officer)

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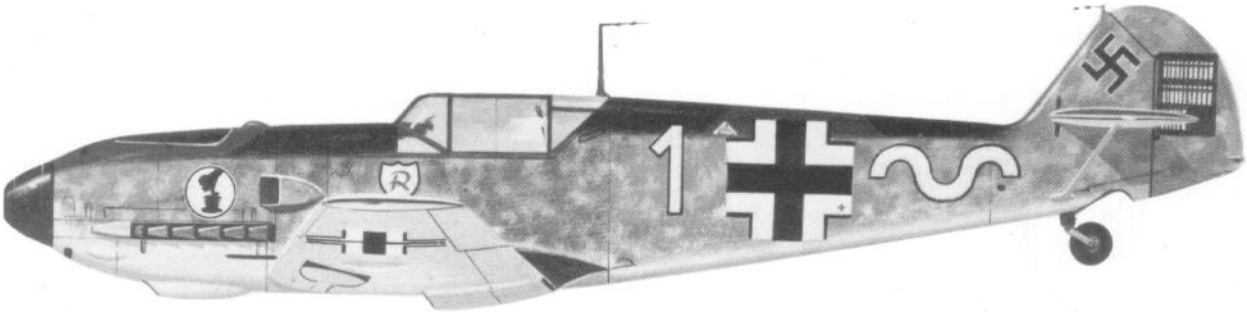


Bf 109E-1, 7./JG2 "Richthofen" flown by Oblt. Macholds, Staffelkapitan. Standard splinter upper surfaces, heavy grey mottle on fuselage. Battle of Britain period based at Le Havre, France. Luftflotte 3.

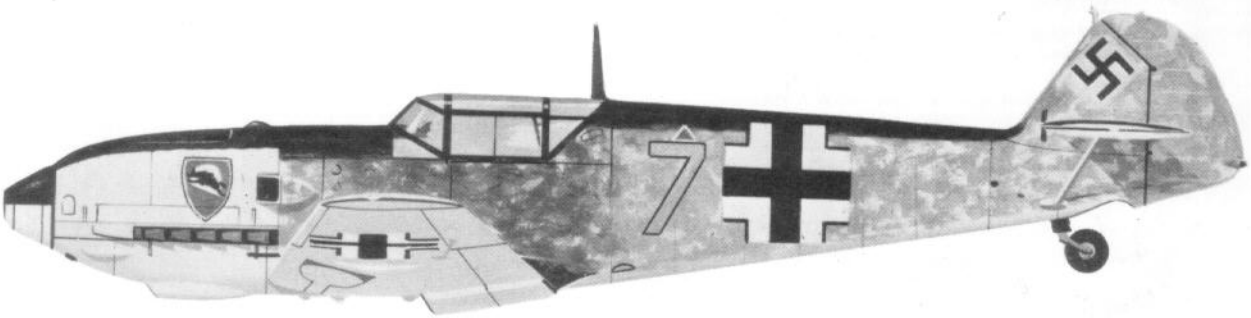
MESSERSCHMITT Bf 109B,C,D,E
IN LUFTWAFFE & FOREIGN SERVICE

Text by Francis K. Mason

Illustrated and compiled by Richard Ward

ACKNOWLEDGEMENTS

This is the first of four volumes on the Messerschmitt Bf 109. When the series is complete the four books will present the most thorough pictorial coverage of this famous aircraft ever published. Acknowledgement must be made to the published researches of Herr Karl Reis Jr., and to all those who assisted with photographs and information whose names are listed below in alphabetical order: Borje Hielm, IWM, Gerhard Joos, Moisescu Mihail, Hans Obert, Hans Redemann, F. Selinger, USAF, Martin C. Windrow.



Bf 109E-1, 1./JG52. Battle of Britain period, shot down at Maidstone, Kent, 28 September 1940. Standard splinter upper surfaces, grey mottle on fuselage sides, very heavy beneath cockpit to full chord of wing. Laon-Couvron, France. Luftflotte 2.

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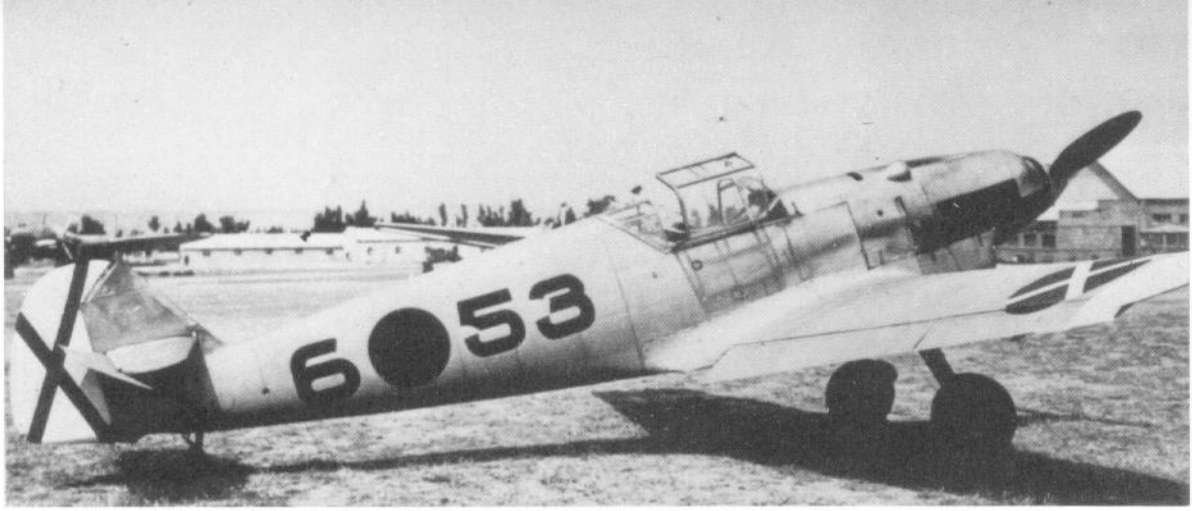
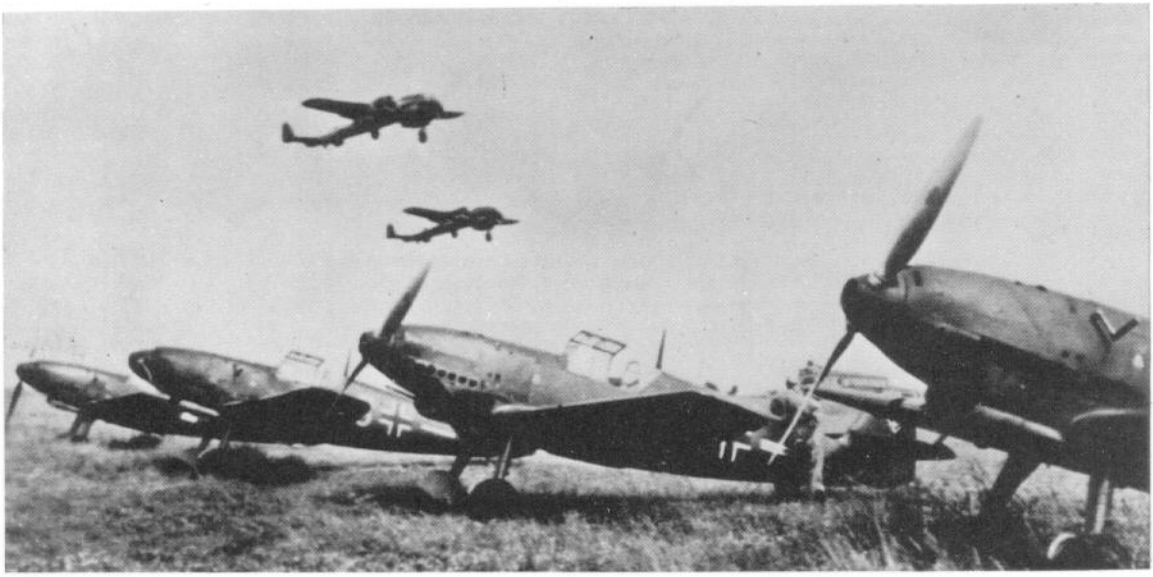
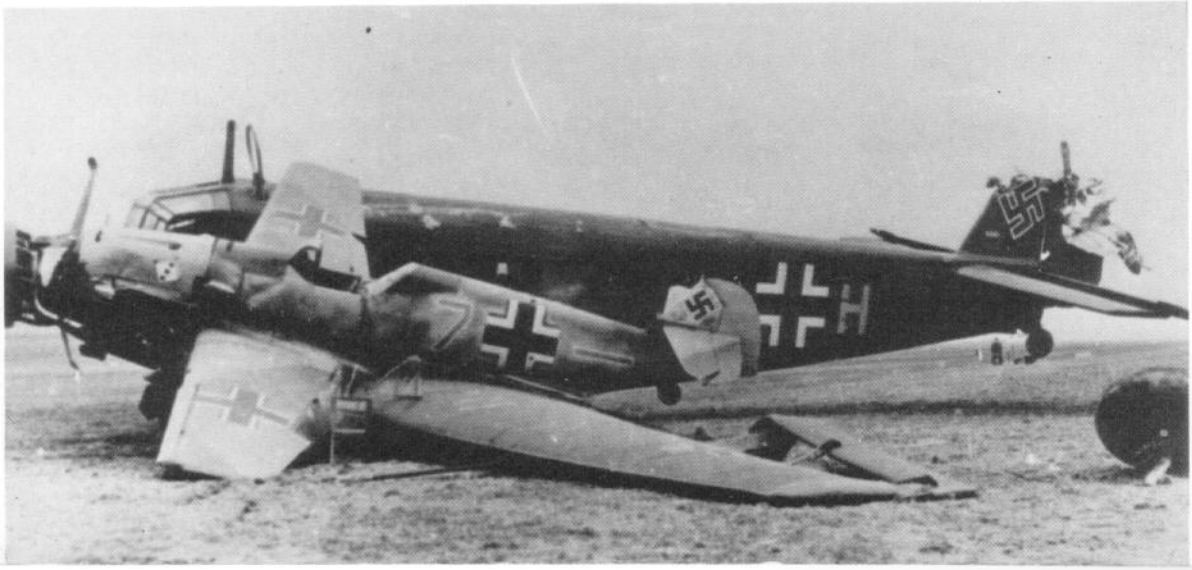


Above: Messerschmitt Bf 109B-2 2./J88 Legion Condor, Brunete area, near Madrid, Spain, June 1937. At the time the photograph was taken the "Top Hat" insignia had not been applied to the fuselage; note the wing roundels slightly overlap the ailerons. (Hans Obert)



Above: Line-up of Bf 109B-2s of II./JG 132 photographed shortly after the deletion of the red tail band, note the nearest aircraft has been equipped with E type exhaust system.

Below: A Bf 109E-1 after a landing collision with a Junkers Ju 52. (Hans Obert)



Yellow nosed Bf 109E-4s of JG 54 "Grunherz", Russia, autumn 1941. Note the crude overpainting of the fuselage cross on white 4. (Hans Obert)

MESSERSCHMITT Bf 109B/C/D/E

It is often remarked that the Hawker Hurricane was the last of a generation and the Supermarine Spitfire was the first of a new one. Whereas the former persisted in a structure design that had originated among the biplanes of a previous era, the latter was to introduce stressed-skin monocoque into British in-service fighter design. That the Hurricane flew six months before the Spitfire and was largely obsolescent several years before the "all-metal" design is further evidence that the Hawker fighter was realistically of an earlier generation. As such, despite a great deal of adaptation in later life, it could never match the design development potential of the Spitfire. This preamble is necessary to illustrate in correct perspective the true significance of Professor Willy Messerschmitt's superb Bf 109 design, for this aircraft flew two months before the Hurricane, was a match for the Spitfire throughout its life, and by the time the Second World War ended could still be counted among the best piston-engined fighters of the day. When one further considers the relative absence of suitable power-plant development during the Messerschmitt's early design period, and the extent of privation suffered by Germany towards the end of the war, that such an aircraft could even contend top honours among the best fighters in the world must bear ample testimony to its extraordinary quality.

Prototypes and early production

Conceived in September 1933, the Bf 109 was one of four designs selected for prototype competitive evaluation—the others being the Arado Ar 80V1, Heinkel He 112V1 and Focke-Wulf Fw 159V1—to replace the He 51 and Ar 68 biplane fighters. The Bf 109V1 (*D-IABI*) first flew in September 1935 and attended the trials at Travemünde the following month. Despite being powered by an imported 695 h.p. Rolls-Royce Kestrel V, and sustaining the collapse of its undercarriage, the Messerschmitt design was adjudged the winner. The Bf 109V2 (*D-IUDE*) flew in January 1936, powered by the new 610 h.p. Junkers Jumo 210A, and was followed by the Bf 109V3 (*D-IHNY*) in June. These two prototypes included provision for two synchronised 7.9-mm. MG 17 machine-guns in the top nose decking, but in the light of reports of the free-firing eight-gun armament to be carried by the Hurricane, it was decided to abandon the proposed Bf 109A production version in favour of the more heavily armed B variant, of which the Bf 109V4, V5, V6 and V7 were prototypes. It was intended to include a 20-mm. FF cannon firing through the propeller hub, but early cooling troubles with the gun led to the later prototypes being completed with a third 7.9-mm. MG 17 in place of the larger gun.

The Bf 109B entered production in 1937 (a batch of Bf 109B-O pre-production aircraft being delivered for service evaluation) and extended to the B-1 and B2 sub-variants. A prototype sub-variant, the Bf 109V13, was a standard B-series airframe with a specially boosted Daimler-Benz 601 engine developing 1,650 h.p., and, flown by Dr. Hermann Wurster, set up a new landplane world speed record of 379.39 m.p.h. on 11 November 1937. (It is worth mentioning here that the later speed record of 469.22 m.p.h., established on 26 April 1939 was *not* set up by a Bf 109—as was suggested at the time. The so-called "Me 109R" was a wholly different design, specially developed for high speed prestige purposes.)

The first production version, the Bf 109B-1, was powered by the 635 h.p. Jumo 210D, had a top speed of 292 m.p.h. at 13,100 feet—the low maximum speed being the direct result of the absence of powerful engines yet available in Germany, when compared with the 1,030 h.p. Rolls-Royce Merlin of the Hurricane (top speed then about 315 m.p.h.). These early aircraft were supplied to *Jagdgeschwader "Richthofen"*, but the poor climb performance bestowed by the early fixed-pitch wooden propellers had already prompted arrangements to licence-manufacture Hamilton two-blade variable-pitch metal propellers and these were fitted to the Bf 109B-2, powered by the two-stage supercharged Jumo 210G developing 670 h.p. This fighter variant had a top speed of 302 m.p.h. at about 17,500 feet. Empty and loaded weights were 3,810 and 5,180 lb. respectively.

Meanwhile rapid strengthening of the fighter units of the *Legion Cóndor*, fighting in support of the Nationalist forces in the Spanish Civil War and facing the Polikarpov-designed I-15 and I-16 fighters supplied by Russia, prompted the hurried despatch of 18 Bf 109B-1s and six B-2s for issue to *1* and *2 Staffeln, Jagdgruppe J/88* in the Peninsula. Such participation by German pilots in modern fighters afforded considerable experience both for the *Luftwaffe* and for the manufacturers, although some of the "lessons" were mistakenly understood by those inadequately informed of their true nature. For example, when a damaged Bf 109 suffered the loss of its tail in a high-speed dive, it lent currency

Nose detail of a Bf 109E-4 of 3./JG 1 at De Koj, Holland in May 1941. This particular aircraft has a yellow cowl and green and grey dappled fuselage; pilot Unteroffizier Hans Schubert. (Hans Obert)

to a widely-held belief that the fighter was badly understressed. In fact no such weakness existed. On the other hand it was confirmed that the Bf 109 *was* undergunned—even by the standards of the Civil War—while three other weaknesses were recognised: that of rudder buffet, of wing shudder resulting from the automatic slats opening at too low an airspeed, and inherent undercarriage weakness (this latter persisting throughout the 109's life and always demanding special care when landing and taxiing). Notwithstanding these shortcomings, German pilots gained considerable successes in air combat, and among the scores attained by Messerschmitt pilots who were to figure prominently in the Second World War were those by Werner Mölders (14), Herbert Ihlefeld (7), Reinhard Seiler (9), Walter Oesau (8) and Günther Lützow (5).

Efforts to remedy the armament shortcomings had continued unchecked at Augsburg; the Bf 109V8 prototype included the addition of two wing-mounted MG 17 guns and the Bf 109V9 featured two wing-mounted 20-mm. FF guns (almost simultaneously in Britain the Hurricane was being readied for experimental installation of a pair of 20-mm. guns under the wings). The outcome of these prototypes was the Bf 109C—the production version which occupied the assembly line during September to October 1937. The pre-production Bf 109C-O and early C-1s were armed with two nose-mounted and two wing-mounted MG 17 machine-guns, while the C-2 included the hub-firing MG 17 in addition. Two C-1s were sent to Spain as replacements for *Jagdgruppe J/88*'s *2 Staffel* in May 1938, and the following August 12 such aircraft re-equipped the *3 Staffel*—later led with such success by Mölders.

The Bf 109C-4 was an unsuccessful variant armed with four MG 17 guns and a hub-firing 20-mm. FF cannon, but the weight of armament limited the speed to no more than 272 m.p.h., while the cannon continued to give further persistent trouble.

More powerful engines at last

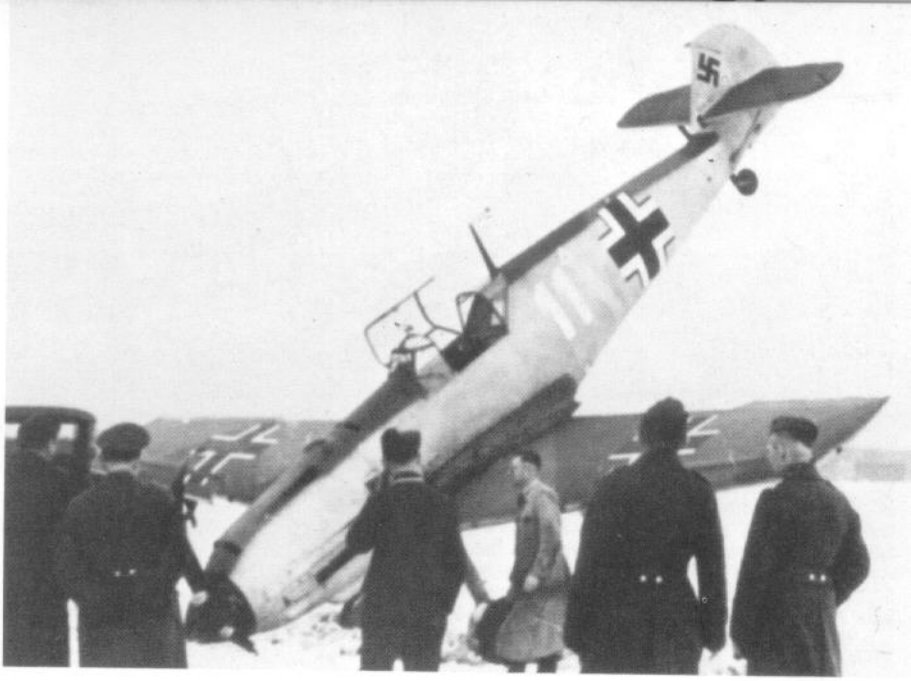
None of the Messerschmitts which were sent to Spain up to the summer of 1938 were capable of speeds greater than about 300 m.p.h. The completion of the Bf 109V10 prototype however represented a substantial improvement; using a standard B-2 airframe, it was powered by a development DB 600 engine of 960 h.p., and this returned a maximum speed of 320 m.p.h. The next two prototypes, V-11 and V-12 (also using B-2 airframes) were fitted with production DB 600A engines, and these aircraft were patterns for the Bf 109D production version which had a maximum speed of 323 m.p.h. and a service ceiling of 31,200 feet. By using B-2 airframes a small pre-production batch of Bf 109D-Os was completed early in 1938 armed with two wing-mounted MG 17s and a single hub-firing FF cannon.

Despite the improvements in power provided by the DB 600, such was the rapidity of engine development in Germany in 1937-38, the Bf 109D was shortlived in *Luftwaffe* first-line use. It is believed that only about 350 such aircraft, the Bf 109D-1, were built and that these only equipped one *Jagdgruppe* in Germany in 1938. They were withdrawn from operational use and re-distribution to fighter schools in small numbers, while others continued to be flown by *Stab Staffeln* of combat units as late as 1941 (one or two even featuring in loss records during the air battles of 1940). Such was the ascendancy anticipated in the later versions that Germany felt confident in allowing the export of three Bf 109C-2s to Hungary late in 1938 and ten to Switzerland. Other Bf 109D-1s served with *Zerstörergeschwader*.

The Swiss Bf 109Cs were registered as *J-301* to *J-310*, deliveries being completed by mid-January 1939; they were mainly used for conversion training and were distributed among *Fliegerkompagnien 6*, *15* and *21* of the Swiss Air Force based at Thun, Payerne and Dubendorf respectively.

The "Emil" appears

The engine development referred to above centred principally about carburation and supercharging—indeed German engineers had for some years been advancing in direct fuel injection and it was recognised that elimination of the customary carburettor would bestow considerable



White 11 of II./JG 1 nosed-over in the snow on De Koj airfield.
(Hans Obert)

advantage in combat as the engine would not cut out under negative-g forces—an advantage realised by Allied pilots during the war when their engines faltered under such conditions while those of their opponents continued to give normal power. The speedy perfection of these innovations in the re-designed DB 601 engine and in the production DB 601A resulted in the decision to discontinue the DB 600—and at the same time the Bf 109D. A new prototype, the Bf 109V14 was flown in the summer of 1938, powered by the 1,100 h.p. DB 601A and armed with two wing FF cannon and two nose-mounted MG 17 guns. It was followed by the Bf 109V15 with hub-firing FF cannon and no wing guns, but the engine-mounted cannon was still proving recalcitrant and the development Bf 109E-Os and initial Bf 109E-1s persisted with their armament of two wing-mounted and two nose-mounted synchronised MG 17 machine-guns. The E-1 sub-variant of the "Emil", as the Bf 109E came to be affectionately known, was the first mass-produced version, and by the end of 1939 a total of 1,540 had been produced in nine factories (a roughly similar number of Hurricanes and Spitfires had been produced at that time).

Compared to other fighters entering service in 1939, the Bf 109E was unmatched, even by the Spitfire in its initial service configuration. On the one hand the Bf 109 possessed an initial climb rate of 3,100 feet/minute (Spitfire, 2,500 feet/minute), was fully combat-cleared up to an altitude of 34,000 feet (the Spitfire had limitations imposed above 26,000 feet owing to gun-heating problems for many months), while those 109s equipped with wing cannon could far outrange the machine-gun armament of the British fighter. The 109 could also outdive the Spitfire. That these conclusions were not strictly born out either in combat or when British pilots flew a captured Bf 109E in 1940 has now been ascribed to the substantial improvements in the Spitfire (such as the addition of the variable-pitch propeller) and the progressive removal of combat limitations.

Aside from combat the Messerschmitt was unquestionably a tricky fighter to fly. It possessed a wing loading 20% above that of the Spitfire and this demanded particular care when landing, while the undercarriage shortcomings (already mentioned) caused frequent mishaps among the less experienced pilots. The wing slats helped to restore some degree of combat manoeuvrability, although they were never able to bestow a fully controlled tight turn to match that of the Spitfire.

The evaluation Bf 109E-Os appeared in December 1938 and some of these were issued to operational *Jagdgeschwader* in February 1939 for service comment. Full production standard Bf 109E-1s appeared at about this time and followed in growing spate, still armed with four MG 17s, while a new sub-variant, the Bf 109E-1/B, capable of carrying either four 50-kilo or a single 250-kilo bomb, was also issued in mid-1939. Often wrongly described as a ground-support fighter, the E-1/B was an unqualified dive-bomber, for the procedure flown was a 45-degree dive along a sight-line provided by the standard Carl Zeiss *Revi* gunsight. As such it was fairly inaccurate —as was the alternative shallow-dive attack at low level for which no bomb-sight was available.

Fifteen Bf 109E-1s arrived in Spain in about March 1939, but were too late to see significant combat service. The following month the *Legion Cóndor* started its return home, but at least one Bf 109E-1 (*W.Nr. 790*) was handed over to the Spanish, and this example survived down the years, and in 1960 was acquired by the Munich *Deutsche Museum* where it is displayed in the colours of *JG 26* "*Schlageter*".

By the outbreak of war in September 1939 every front-line *Jagdgeschwader* was fully equipped with the Bf 109E. No wholly accurate production figure for this variant can be quoted (although various numbers have been suggested, ranging from 1,800 to about 3,400) as from examination of the *Werke Nr.* records it is clear that subsequent variations had commenced manufacturing assembly as E-1s, although this was to some extent offset by service reversion to E-1 standard by field engineer facilities. What is now quite clear is that production of the E-1 continued almost throughout 1940, alongside the later E-3 and E-4 variants.

When Germany invaded Poland on 1 September 1939 the *Luftwaffe* fighter strength was 12 *Gruppen* with an establishment of 850 Bf 109E-1s and E-1/Bs. In addition a *Zerstörergeschwader* fielded about 230 obsolescent Bf 109D-1s. A few other Bf 109E-1s operated searchlight co-operation sorties with a fighter *Gruppe* of *Lehrgeschwader 1*. Whatever the relative achievements by the *Luftwaffe* and the Polish Air Force may appear in the light of subsequent scrutiny, there is no doubt that the *Luftwaffe* Staff did not derive much from the combat experience gained by Bf 109E units in the short Polish campaign. Indeed, much more significant were the fleeting brushes with the RAF and *Armée de l'Air* in the west, before the end of 1939. Despite the stalemate reached on the Western Front, in which there were probably fewer than a dozen instances of fighter-versus-fighter combat, unescorted RAF bombers were being punished by Bf 109E-equipped units based in Northern Germany, especially *JG 77*. (In a raid by 24 Wellingtons of Nos. 9, 37 and 149 Squadrons on Wilhelmshaven on 18 December 1939, *III/JG 77* Bf 109Es shot down no fewer than 12

of the bombers—a certain Leutnant Johannes Steinhoff scoring two of the victories; this pilot eventually shot down 176 enemy aircraft during the war.)

Following the E-1 into *Luftwaffe* service was the E-3, which had commenced delivery during 1939. Armed with two MG 17s in the nose, a further pair in the wings, and an MG FF/M hub-firing cannon, this variant was the principal production variant during the period September 1939 about May 1940, though as will be related later the hub-firing cannon was unpopular in service and was frequently discarded, while the aircraft variant itself appears to have been phased out during the second half of 1940.

The E-4 entered production early in 1940, but it is thought to have been too late to see action in the Battle of France. In this the engine-mounted cannon was discarded, but the wing machine-guns were replaced by MG FF cannon. Rather later on, in 1941, a sub-variant of the E-4, the E-4/N came to be used in the Western Desert; it featured a DB 601N engine with improved fuel injection and supercharger coupling, and served for many months with *Jagdgeschwader 27* and *53*.

Other improvements in the E-4 included improved armour protection (a feature that rendered the E-4 more popular than the E-1 during the Battle of Britain) and slightly improved pilot field of vision.

The next versions which joined the *Luftwaffe* simultaneously in August 1940 were the E-2 (which saw only limited service) and the E-7. The E-7 was both widely built and retrospectively modified from the E-4. It joined *Jagdgeschwader* and *LG 2* in France and featured the E-4 gun armament, plus belly-shackles for either 500-kilo bomb or jettisonable 66-Imp. gal. fuel tank. A minor variety of this version was used by *Erprobungsgruppe 210* late in the Battle of Britain carrying the drop-tank plus two or four 50-kilo bombs, thus being able to reach No. 12 Group airfields of the RAF. The E-7 was flown by the ubiquitous *III/JG 77* in the Balkans, and also over Malta in 1941. The Bf 109E-7/U2 was an armoured ground-attack version, tropicalised for use in North Africa, and the Bf 109E-7/Z was a little-used "sprint" variant using GM 1 boost, with nitrous oxide injected into the supercharger to provide extra oxygen and reduce detonation.

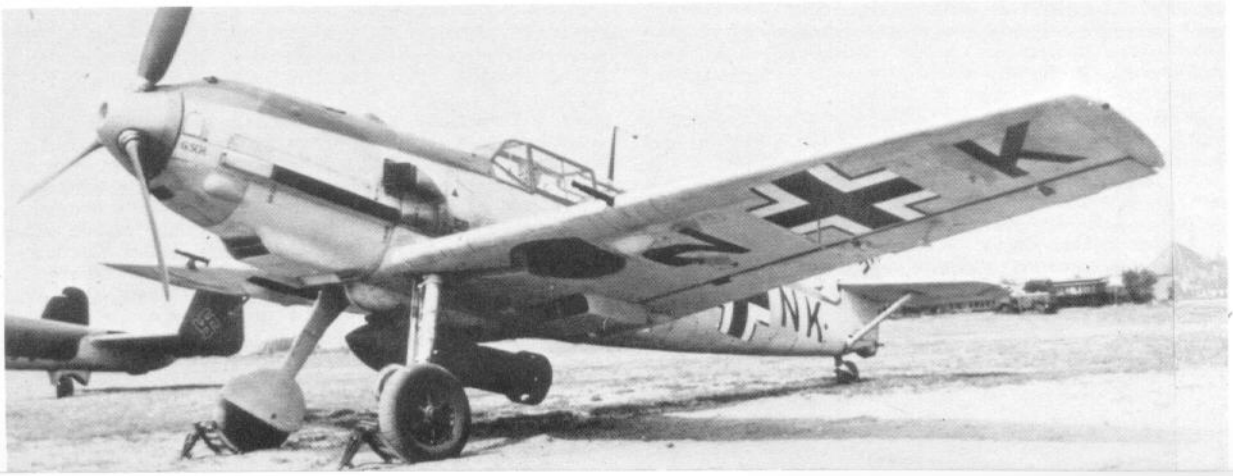
Three other standard "Emils", the E-5, E-6 and E-8 reached *Luftwaffe* units before the end of the Battle of Britain, although as far as is known the E-6 was not encountered in action. The E-5 and E-6 were reconnaissance versions which omitted the wing armament and featured a camera mounted behind the pilot's seat. They differed only in the powerplant, the former with a DB 601A and the latter with a DB 601N. The E-8 was simply a manufactured variant which formally included all fighter and fighter-bomber modifications added to previous versions, and was powered by a 1,200 h.p. DB 601E engine Only the E-9 remained to join the *Luftwaffe* at the end of 1940; this had no wing armament, but included provision sions, and was powered by a 1,200 h.p. DB 601E engine. engine.

One "odd-ball" version of the "Emil" was redesignated the Bf 109T (*Träger*=Carrier)—navalised E-3 airframes intended for service abroad the *Graf Zeppelin* aircraft carrier on which work was proceeding in 1940. They featured increased-span, manually-folding wings and arrester hooks, and when work was suspended on the carrier about fifty aircraft had been completed. They were handed over—minus deck hooks—to *I/JG 77*.

The big battle in the west

Before going on to record the Bf 109's service during the air war over Britain in 1940, it is necessary to enlarge upon the equipment being delivered, flown and lost in the battles in the west during the summer of that year. It has been frequently stated in the past that the Bf 109E-3 was the principal variant flown by the *Luftwaffe* during the Battle of Britain—an assumption presumably stemming from Factory Delivery Records during the period March to July 1940. Yet a careful analysis of the *Luftwaffe Genst. Gen.Qu./6 Abteilung/40.g.Kdos.IC* (Operational Returns) for the period 1 July to 31 October 1940 discloses the following interesting information:

Two good detail shots of a Bf 109E-4 with and without belly bomb rack. (Hans Redemann)



Variant	First on operations	First in combat	First loss sustained during Battle	Total lost	Total damaged
E-1	(1939)	(1939)	4/7/40[1]	249	94
E-2	25/8/40	31/8/40	7/9/40[2]	0	1
E-3	(1939)	(1939)	2/7/40[3]	32	11
E-4	7/40	4/7/40	4/7/40[4]	344	111
E-5	30/8/40	31/8/40	6/9/40[5]	2	0
E-7	26/8/40	31/8/40	31/8/40[6]	22	8
E-8	25/10/40	28/10/40	28/10/40[7]	2	0

[1] An aircraft of *1/JG 3*, which crashed at Grandville.
[2] An aircraft of *6/JG 3*, suffered accident at Vierre-au-Bois.
[3] An aircraft of *1/JG 2*, which crashed at Soesterberg.
[4] An aircraft of *III/JG 27*, damaged in combat with Hurricane.
[5] An aircraft of *Korps-Führungskette VIII* which crashed at Toutoinoille; Oberleutnant Tettenborn killed. The following day an aircraft of *II/JG 2* was missing in combat, pilot Uffz. Melchert.
[6] An aircraft of *1/LG 2*, shot down by Bird-Wilson of 17 Sqdn.
[7] Aircraft "Black 2" of *5/JG 27*, shot down by British fighters over Gravesend. Pilot, Uffz. Artur Gonschorrek, missing.

Furthermore, the document attached as *Vord.II* to *Obd. L.Genst.Gen.Qu./6 Abt.Nr.4008*, apparently issued to indicate a day-by-day order of battle down to *Staffel* level indicates that the Bf 109E-1 and E-4 predominated in the West:

31 August 1940. (All operational units, excluding JG 77)

Operational: 307 Bf 109E-1; 102 Bf 109E-3; 304 Bf 109E-4; 27 Bf 109E-7

Non-operational: 68 Bf 109E-1; 23 Bf 109E-3; 35 Bf 109E-4; 5 Bf 109E-7

The earlier conflicting accounts cannot be explained and one may only offer conjecture. Certainly hundreds of E-3s were delivered before and during the Battle of France and were still being delivered (albeit in a modified form) afterwards, but the fact remains that relatively few saw action during the Battle of Britain itself. There have been numerous reports and accounts by German pilots which speak of their dislike of the FF hub-firing cannon, and it is therefore possible that modifications to this installation kept the great majority from the Battle. Three Bf 109E-3s which were subsequently recovered after falling over Britain were found to have no hub-firing gun fitted.

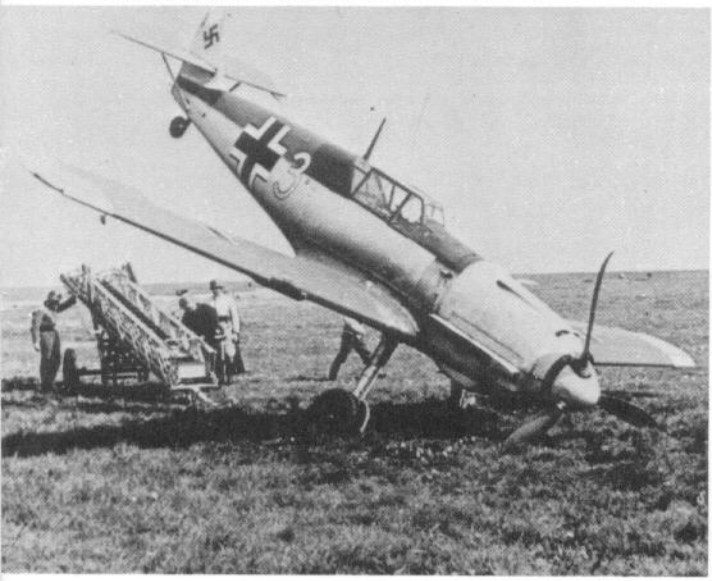
A more likely explanation would seem to be that the majority of E-3s were withdrawn or withheld from combat units, probably in late June or early July (at the time that *Luftflotten 2* and *3* grouped up to their Channel Coast bases), their places being taken by E-1s which existed in large numbers. Sufficient E-3s were probably retained to maintain establishment until they could be replaced by the E-4 which commenced delivery late in June. Indeed it is probable that the very quick build-up of E-4s (confirmed by the "order of battle" document above) was achieved by modifying numerous E-3s to E-4 standard. This seems to be confirmed by collection of the *Werke Nr.* of aircraft known to have been in combat service during September and October 1940.

The Bf 109E-4, which bore the brunt of the September air fighting, reverted to the nose-mounted synchronised MG 17s and a pair of improved wing-mounted MG FF cannons. The latter gave little trouble in service, but carried ammunition for only ten seconds' firing. The E-4 was in fact a very successful and widely-used variant and only about three weeks elapsed between first delivery of the E-4 and that of the E-4/B—a bomb-carrying version which appeared in service simultaneously with *Erprobungsgruppe 210 (3 Staffel)*, and *Lehrgeschwader 2*. Although *Erpr.Gr. 210* had since the beginning of the Battle been operating the *3 Staffel* of Bf 109E-1/Bs, their bombing procedure was wholly different from that adopted by the majority of E-1/B-equipped units—which generally adopted the steep-diving attack. Although there are a few known instances during the Battle in which *3/Erpr.Gr. 210* commenced an attack from a steep dive (for example the raid on Martlesham Heath on 15 August), the great majority of their attacks were made in a shallow diving turn at low level. Having dropped their bombs (usually the four 50-kilo bomb-load was carried), *3 Staffel* would climb and provide top cover while the Bf 110-equipped *1* and *2 Staffeln* carried out their bombing attacks.

Remembering that *Erpr.Gr. 210* was in effect a tactical trials unit, it fell to this unit to pioneer the high-level bombing attacks by Bf 109s that were to characterise the last phase of the Battle. *3/Erpr.Gr. 210 made over one hundred such sorties during the second and third weeks in September, and were never once intercepted.*

The Battle of Britain was a severe test for the pilots of Bf 109s. It was not originally intended as an escort fighter, yet this was the task allotted to the *Jagdgeschwader* during the greater part of the Battle. In the opening phases the fighter units were given the apt task of "free chasing" over the Channel and south-east England, and they frequently did great execution among the RAF fighter squadrons whose main task was to intercept the bombing raids. Often a "free chase", flown by a dozen or so Bf 109s, would intercept a group of British fighters returning with low fuel and little ammunition. But it was the damage inflicted on the bomber formations which prompted Göring to order the *Jagdgeschwader* to switch

Yellow 3 of 3./JG 1, from the state of the prop tips the nose-over was slow and gentle. Note the camouflage demarcation line, taken the full width of the lower tail-plane, white engine cowl and wing tips. (Hans Obert)



A Bf 109E of III./JG 77 belly landed on a Norwegian airfield. (Hans Obert)

to close escort duties, a chore that frustrated the fighter pilots' instinct for individualism. Sticking close to slow bombers, which raided further and further into England, resulted in the Bf 109s running dangerously short of fuel, so that not only were they often forced to break off combat and leave the bombers unescorted, but their pilots had to nurse their aircraft back across the lonely waters of the Channel wondering whether the dreaded fuel warning light would signal a watery landing. Seldom after the opening weeks of the Battle were the Bf 109s permitted to fly unrestricted free chases but when they did (as in the first week of September) the RAF suffered cruelly. The mistaken use of his best aircraft was one of the basic errors which cost Göring the Battle.

The "Emil" in foreign colours

Between 1939 and 1941 a total of 284 Bf 109Es was exported; in addition, there was a number of others which, by fortunes of war, found themselves in the colours of other nations—including at least four flown in Britain, one in France and one in Sweden. The first Bf 109E, believed to have been an E-3, was forced down at Amiens, France, on 2 May 1940. It was immediately painted in French colours, although only one pilot of the *Armée de l'Air* flew it; it was also flown by pilots of Nos. 1 and 73 Squadrons of the RAF, repainted in British colours and transferred to Boscombe Down where it was extensively flown. Within six months a further three Bf 109s were flying in British colours—a Bf 109E-1 and two E-4s.

The Swedish example was an E-1 ("White 3" of *4/JG 77, Werke Nr. 0820*) which accidentally forcelanded in Sweden on 24 October 1940. Little is known of the fate of this aircraft save that it was the subject of a diplomatic exchange in November 1940, suggesting that it was recovered intact and probably flown in Swedish colours. The pilot, Uffz. Fröba, was interned.

The largest foreign customer for the "Emil" was Switzerland. Thirty Bf 109Es, powered by the 1,100 h.p. DB 601Aa and armed with two 7.45-mm. and two 20-mm. Hispano cannon, were delivered between 14 April 1939 and the end of June that year. A further order for 50 similar aircraft was quickly placed, and deliveries of these was completed by 27 April 1940. By mid-1940 six *Fliegerkompagnien, Nos. 6, 7, 8, 9, 15* and *21* had reached full operational status. Despite Swiss neutrality, frequent excursions through her airspace resulted in numerous combats with the warring airforces. On the whole the Swiss Bf 109 pilots seem to have given a good account of themselves. The imported "Emils" were registered *J-311* to *J-390*. Bf 109s were also built under licence in Switzerland, although it is believed that production by the *Dornier-Werke AG* of Altenrhein, Switzerland, was intended to provide spares and limited replacements; in the event, only nine complete aircraft, four sets of wings and seven fuselages were produced between April 1944 and March 1946; the completed aircraft were registered *J-311* to *J-399*.

Next largest quantity of exported Bf 109Es went to Yugoslavia, which during 1938 embarked on substantial fighter re-equipment, endeavouring to acquire such fighters as were permitted for sale by European governments, as well as licences to build them. After months of negotiations an initial contract for 50 Bf 109E-3s was signed, and this was followed by an order for a further 50. In the event only 73 arrived for service with the *Jugoslovensko kraljevsko ratno vazduhoplovstvo (JKRV)*. They served with the *32.Lovacka grupa*, and the *102.* and *161. eskadrilja* of the *51.Lovacka grupa* of the 6th Fighter Regiment, the *31.Lovacka grupa* of the 2nd Fighter Regiment, and with the Fighter Training Squadron *(Samostalna eskadrilja lovacke škole)*. At the time of the German invasion of Yugoslavia on 6 April 1941 only 46 Bf 109Es were available at combat readiness, and their pilots gave a creditable account of themselves (often fighting against similar Bf 109Es of the *Luftwaffe*) but were soon overwhelmed by the huge weight of the German forces.

A *Luftwaffe* mission to Romania in September 1940 was followed by that country's joining Germany in the Tripartite Pact on 23 November, and resulted in a quantity of German military aircraft being ordered—including 40 Bf 109E-4s. By the time of the German invasion of Russia in 1941, these aircraft had not been integrated into the *Fortelor Aeriene Regal ale România* (Royal Air Forces of Romania, or FARR) and the Romanian elements of *Luftflotte 4* suffered considerable attrition on the Bessarabian Front. Early in 1942 *Flotila 1 vinâtoare* was withdrawn for re-equipping, its surviving He 112Bs and PZL P.24Es being replaced by the Bf 109E-4, of which a total of 69 had by then arrived from Germany. These aircraft were concentrated in two fighter groups of the 1st Air Corps *(Corpul 1 Aerian)* and fought for about six months in the Ukraine until replaced by Bf 109G-6s and G-8s.

At the same time that the Bf 109E-4s joined the Romanian *Corpul 1 Aerian*, a further 40 Bf 109E-4s were supplied to re-equip Hungarian air elements of *Luftflotte 4* whose Fiat C.R.42 biplanes had also suffered considerably in Russian skies.

Another signatory of the Axis Tripartite Pact was Bulgaria, and by the time of the signing of the Pact its air arm (an integral part of the Bulgarian Army) had ordered 19 Bf 109E-4s. Nevertheless, unlike Romania and Hungary, Bulgaria took no significant part in the early campaigns in Russia and it is thought unlikely that her Bf 109Es saw combat service.

On the other hand, following the formation of the Slovakian Republic in 1939, a semi-autonomous Slovak Air Force participated alongside the *Luftwaffe* in the Polish campaign of that year. The following year 16 Bf 109E-3s were supplied to this Air Force and in 1941 two squadrons of Bf 109Es fought with the German forces invading Russia.

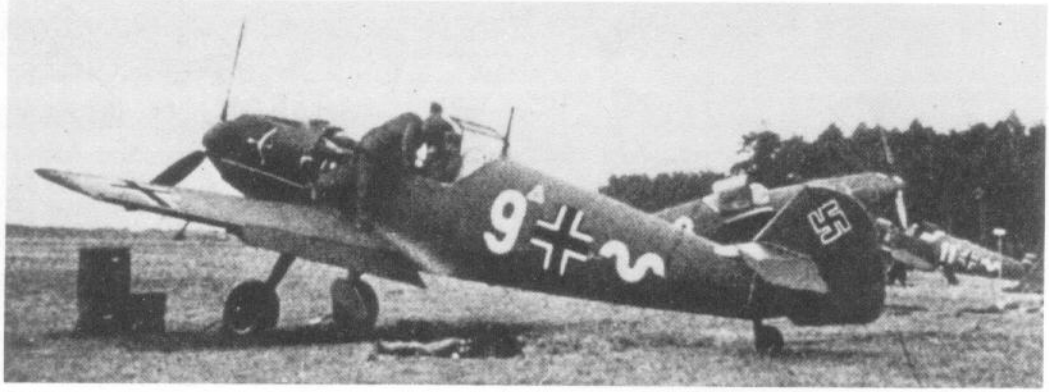
This completes the list of "Emils" exported for service with foreign air forces, although it is known that at least five such aircraft were supplied to the U.S.S.R. in 1939-40. Two further aircraft were shipped to Japan where it was intended to licence-build the type at the Kawasaki plant, but this plan never materialised.

There is no doubt that the Bf 109E was the finest fighter based on the European continent between July and December 1940, but by the time Germany attacked Russia it had been overtaken by the Bf 109F, and the "Emil" never again enjoyed the unquestioned superiority it found in the months that preceded the fall of France.

Above: A pair of Bf 109D-1s in splinter camouflage. JG 1 operated this type for a brief period during 1938/1939; the numerals on the yellow fuselage band aft of the cross would seem to indicate training aircraft. (via M. C. Windrow)

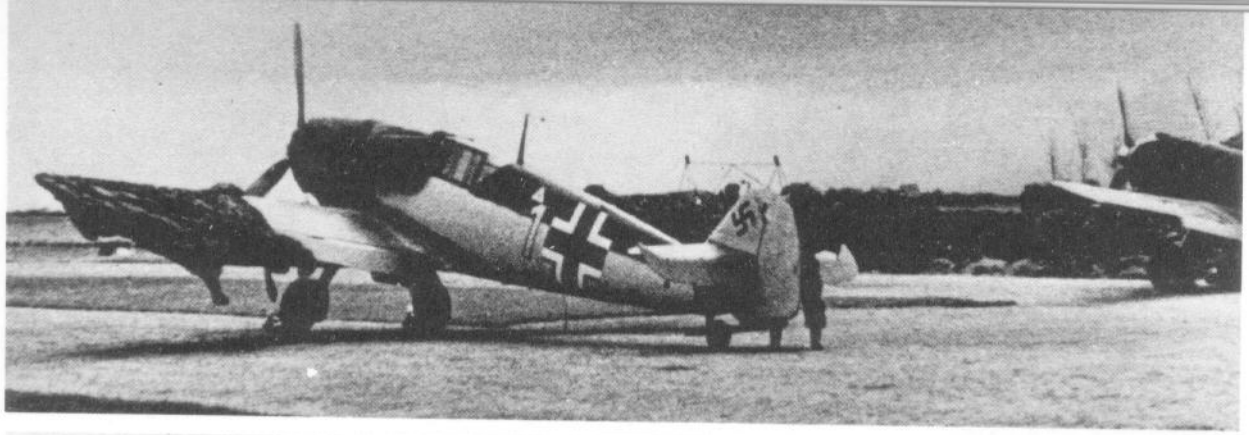
Above: Line-up of Bf 109Cs of an FTS near Vienna and below nose detail of a Bf 109E-1 of JG 77. (Hans Obert)

Above: Bf 109E-1 in overall black green finish, note the insignia of I./JG 51 Mölders ahead of the cockpit and the skeleton hand of 3./JG 233 beneath the cockpit. Note the large wing cross. (Hans Obert)

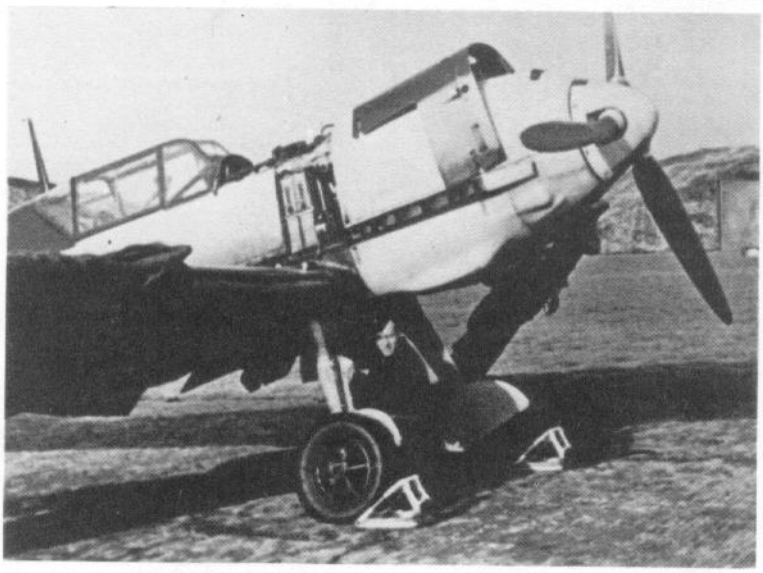


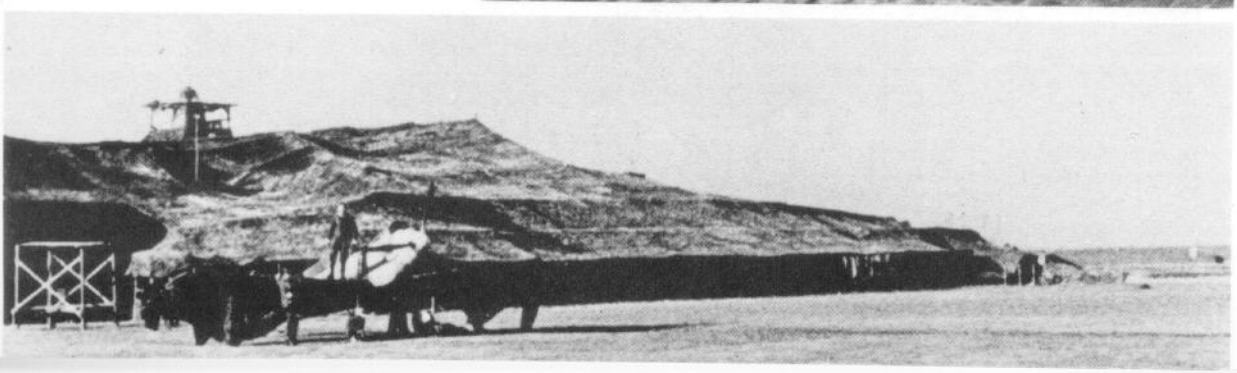
Above: White 9, 3 and 11 of 7./JG 51 Mölders, Bf 109E-1s in overall black green scheme, previously this unit was 1./JG 20, formed as a night fighter unit. (via Moisescu Mihail)

Below: Bf 109E-1 of 8./JG 51 Mölders, previously 2./JG 20.



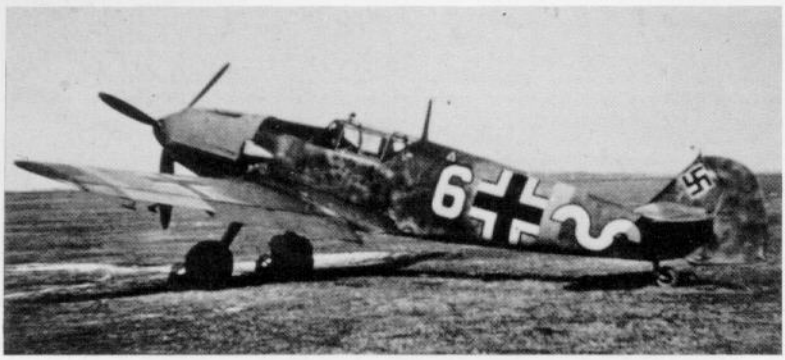
Bf 109E-1s of 3./JG 1 on De Koj airfield, Holland, May 1941. All the aircraft with the exception of yellow 4 are still in early 1940 style camouflage. (Hans Obert)



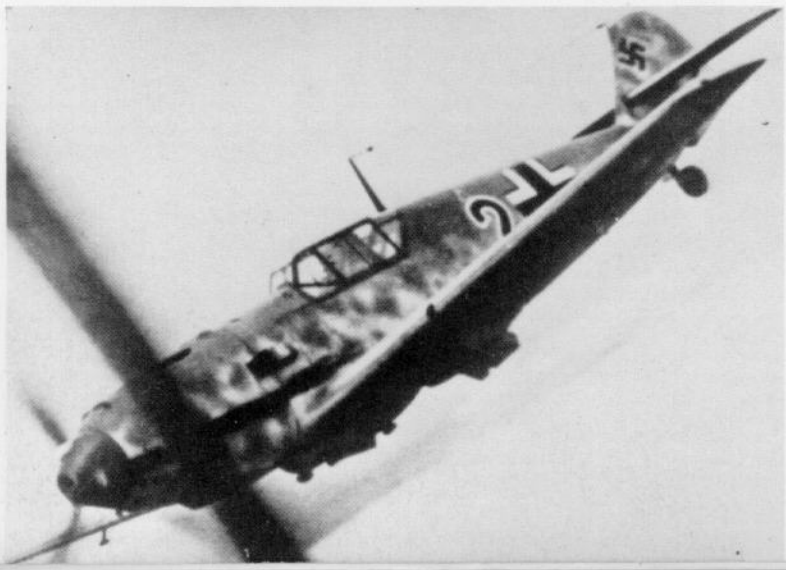


Line-up of Bf 109E-1s in a lightly dappled scheme of light and dark green which appeared during the early period of the Battle of Britain; the white outlined black chevrons appear to have been painted on the original photograph. (R. Ward)

Bomb laden Bf 109E of III./JG 1, note insignia beneath cockpit.



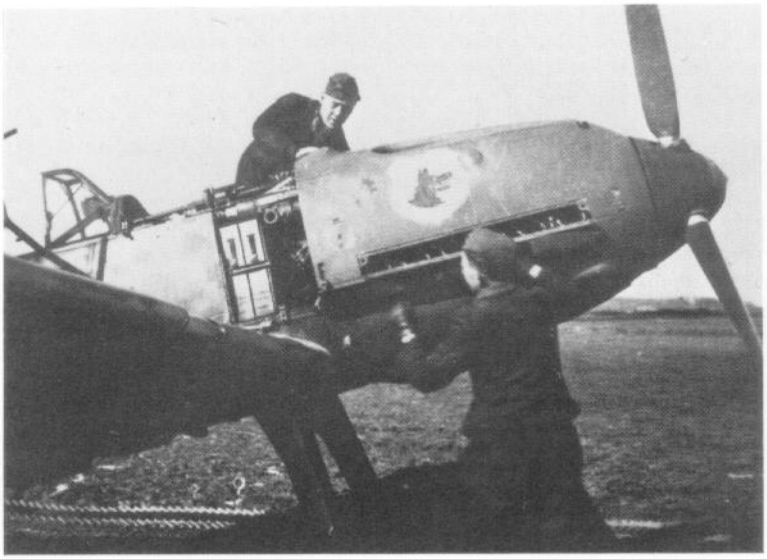
Bf 109E-1 of 7./JG 52 on a Channel coast airfield towards the end of the Battle of France, yellow nose and fuselage band. Note what appears to be an RAF style rear view mirror on the canopy. (G. Joos via M. C. Windrow)



Bf 109E-7/U2; this version was very heavily armoured for ground-attack missions and used extensively in the desert campaigns. (F. Selinger via M. C. Windrow)

Above: Bf 109E-1s of III./JG 77 on an airfield in France in early March 1941. (Hans Obert)

Right: Insignia of III./JG 77. (Hans Obert)



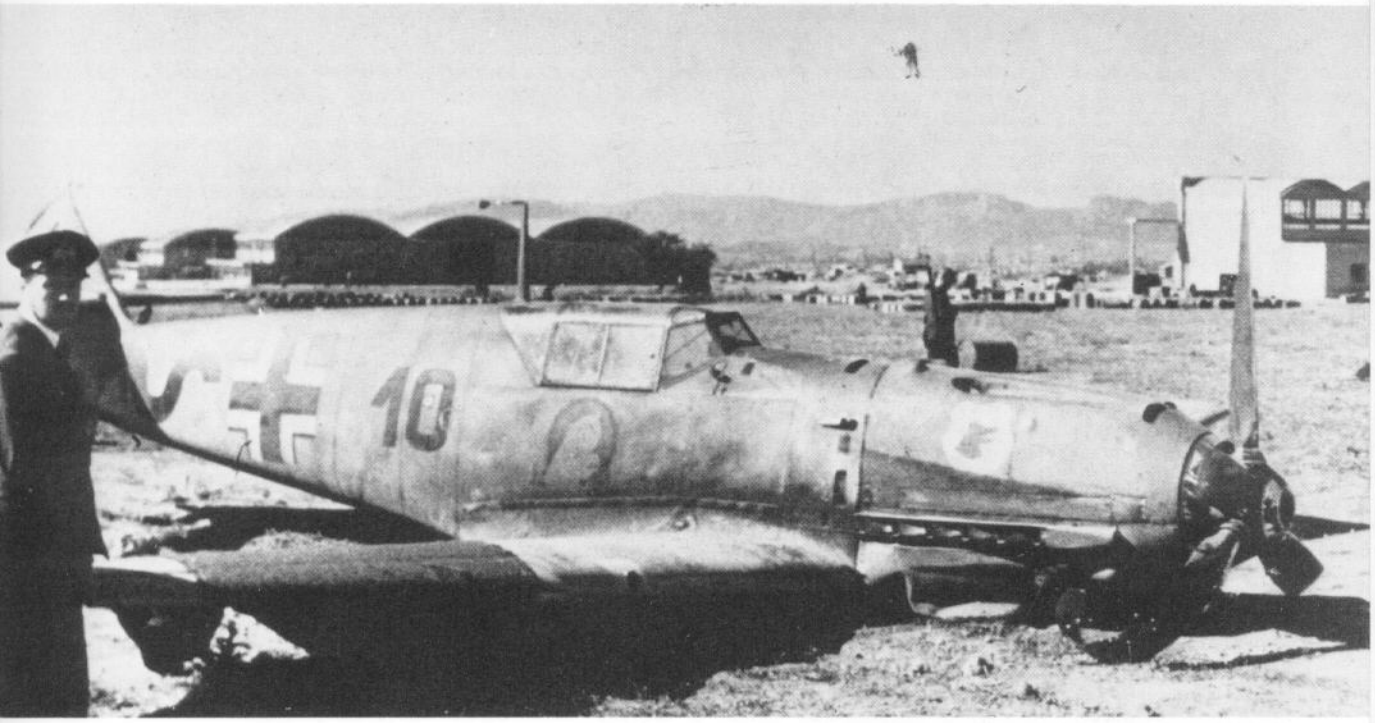
Close-up showing wavy camouflage demarcation line along leading edge of wing, III./JG 77. (Hans Obert)

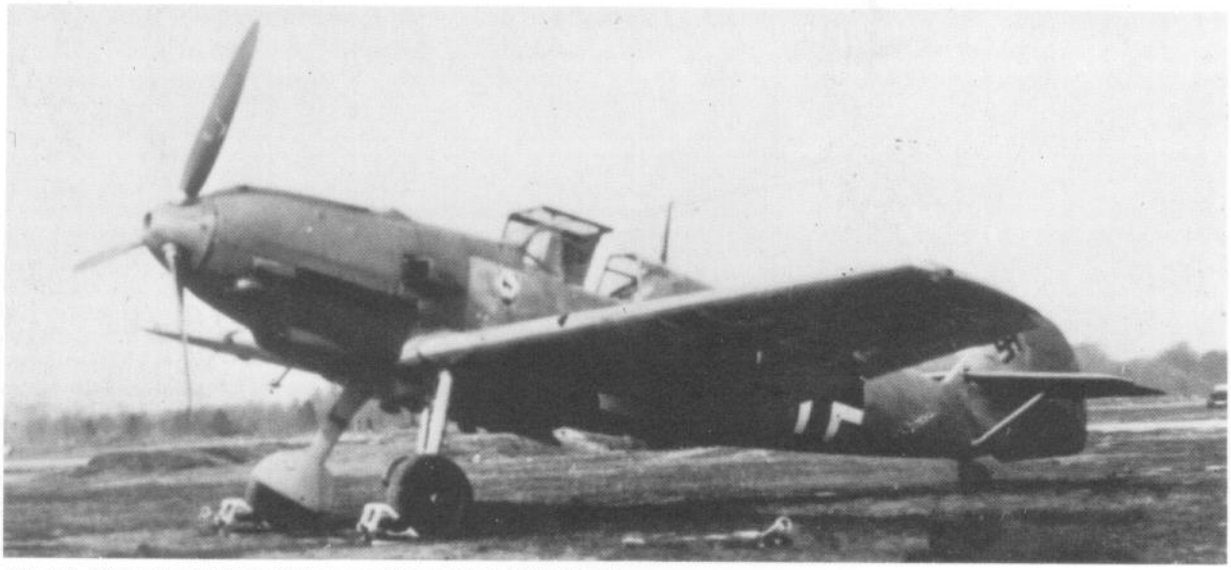
Above & left: 7./JG 77 shortly after their arrival in Greece in 1941. (Hans Obert)

Below: Pilots of 7./JG 77 find a little equestrian relaxation between missions during the Greek campaign, Unteroffizier Johann Pichler on the second pony. (Hans Obert)

Right: Nose-over by a Bf 109E-7 of 7./JG 77 on a Rumanian airfield in July 1941. Yellow fuselage and nose but no yellow on the underside of the wing tips. Style and position of under-wing crosses clearly shown. (Hans Obert)

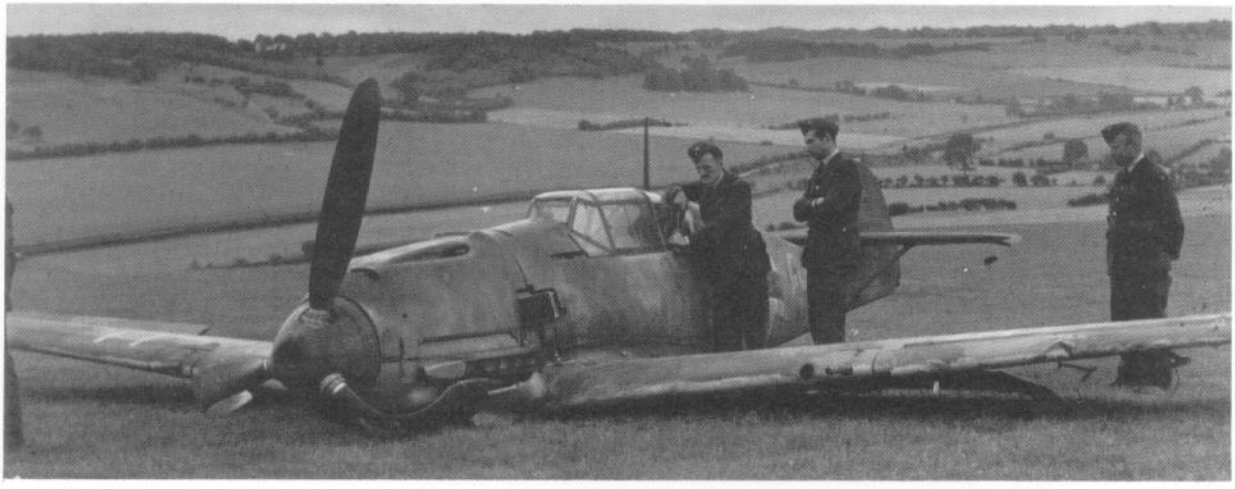
Below: A Bf 109E-7 of 7./JG 77 shot down in Greece during the spring of 1941. (IWM)



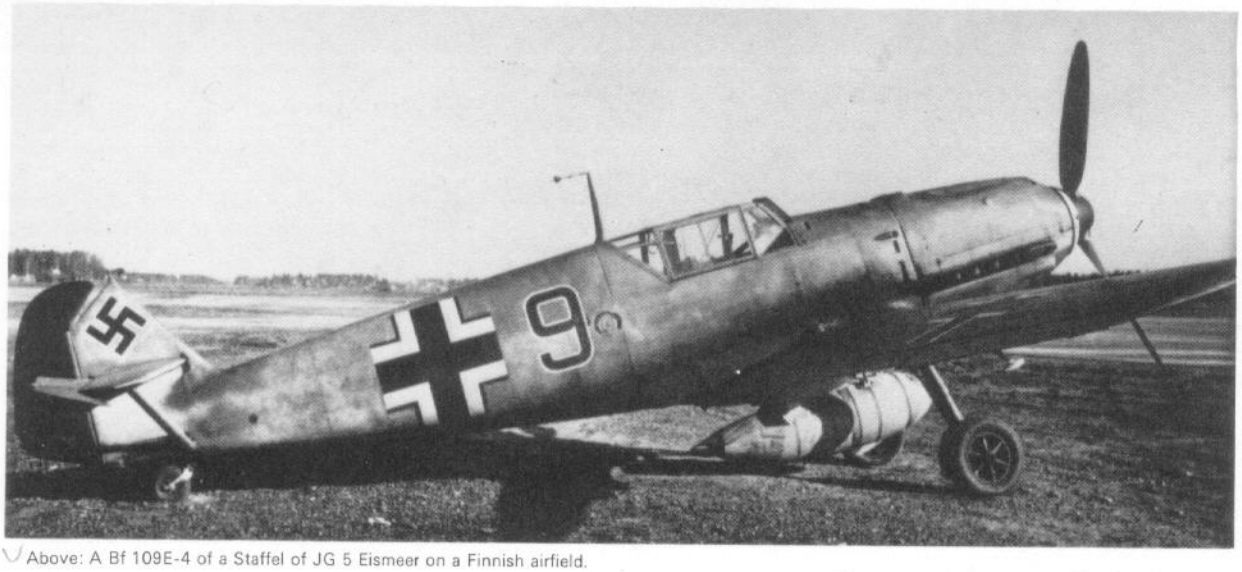


Above: A Bf 109E-1 of I./JG 51 Mölders on a French airfield. (Hans Obert)

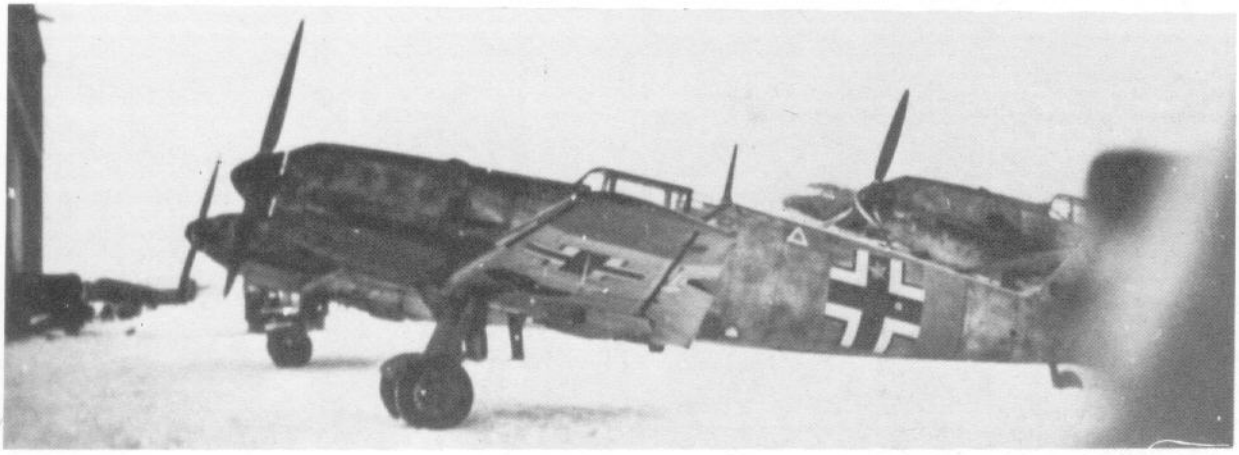
Below: Bf 109E-4 of 6./JG 52 based at Wissant, France, shot down over the UK during the Battle of Britain.



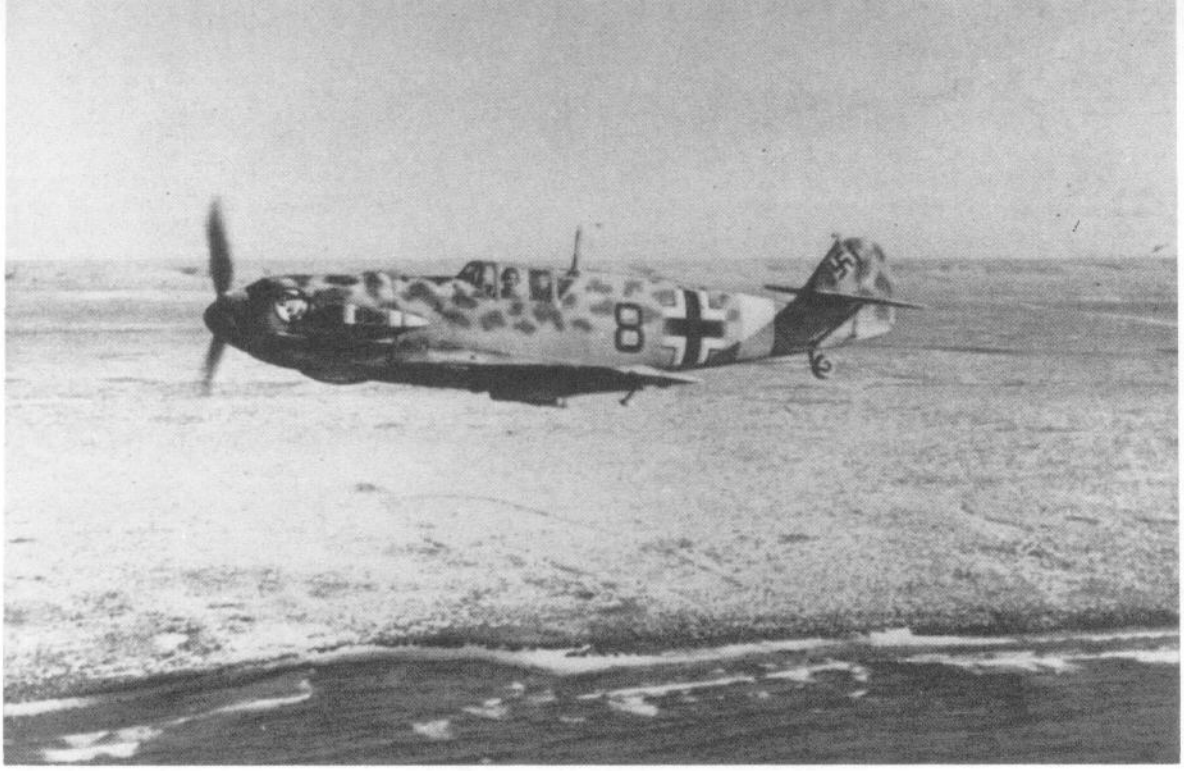
Below: A Bf 109E-4 late in the war on second-line duties after a heavy landing on Prague airfield. Staff Flight of III./ZG 1, note "Wasp" insignia on cowl. (Hans Obert)



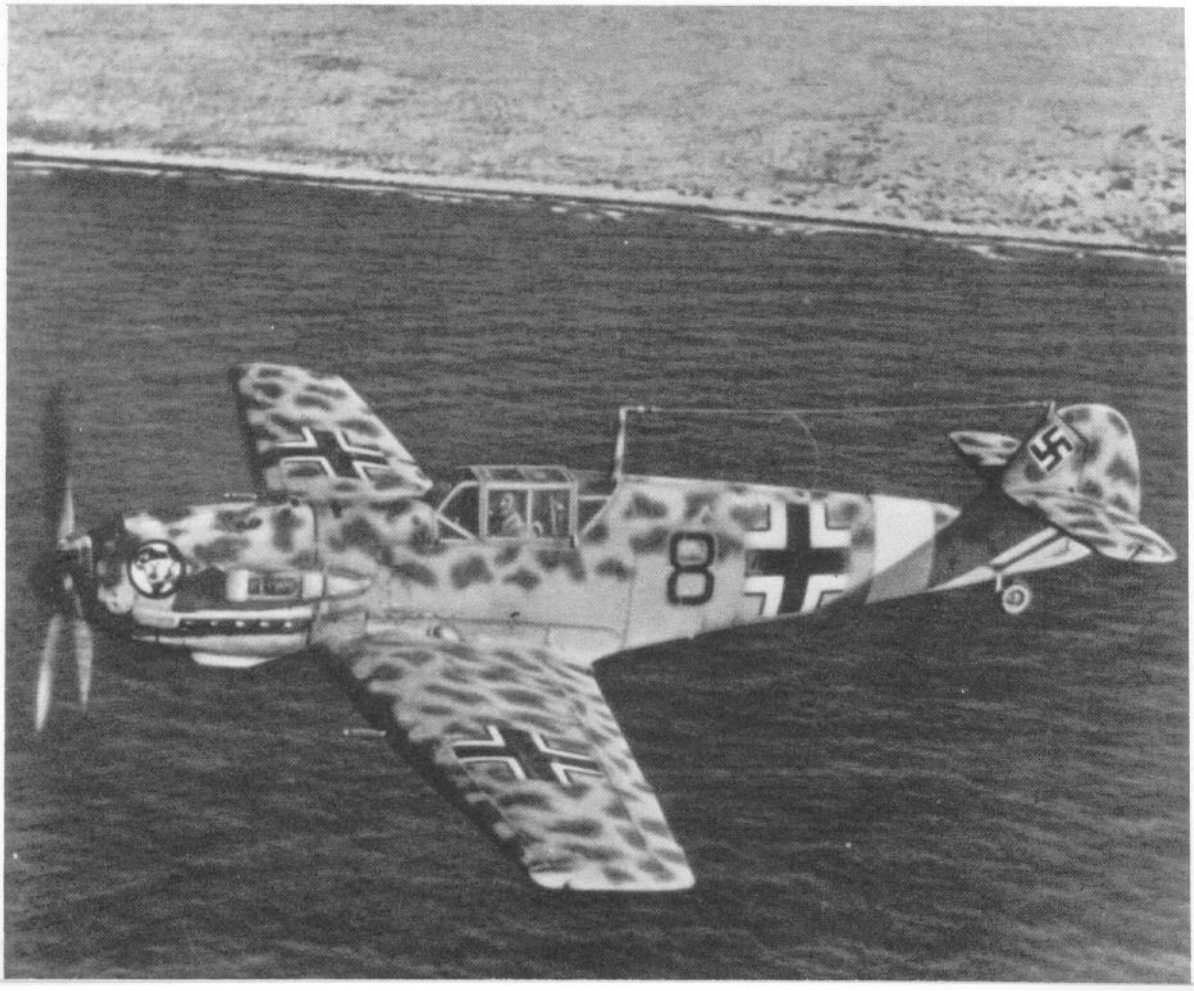
Above: A Bf 109E-4 of a Staffel of JG 5 Eismeer on a Finnish airfield.



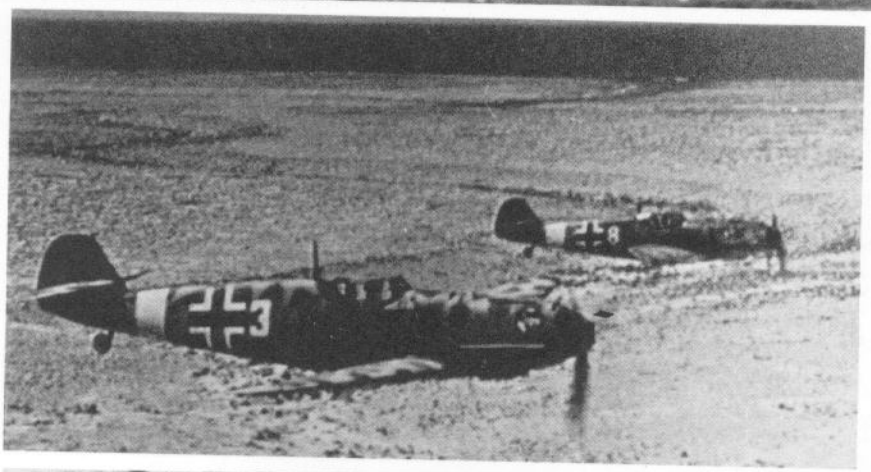
Above & below: Bf 109E-4s of JG 5 on a Finnish airfield, the snow clad hills and trees have been painted on the hangar doors. (B. Hielm)



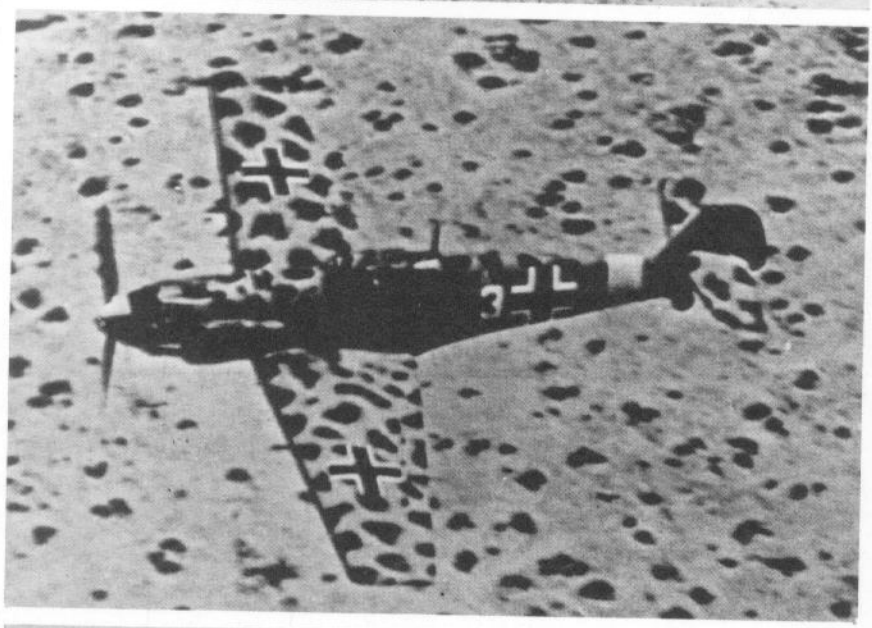
Bf 109E-4Trop of I./JG 27 "Afrika" flying along the Libyan coastline during the summer of 1941. In the distance of the top photograph may be seen the escarpment upon which the majority of the desert landing-grounds were situated from Egypt to Tunisia. (R. Ward)



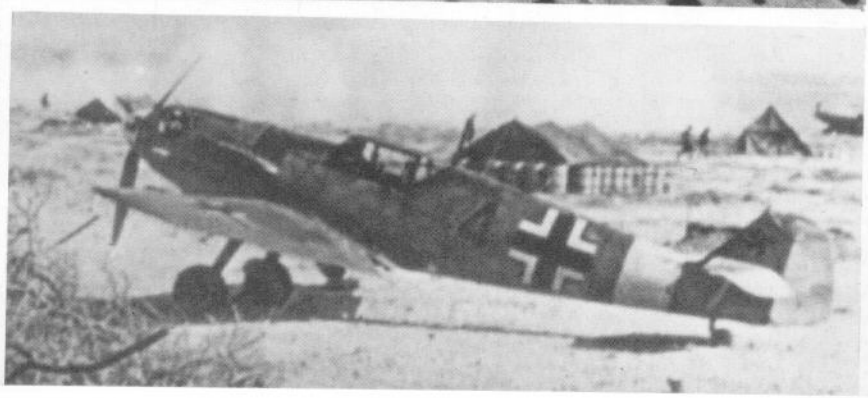
Above: Bf 109E-4Trop's of I./JG 27 warming up prior to take-off from a North African airfield.
(USAF via M. C. Windrow)

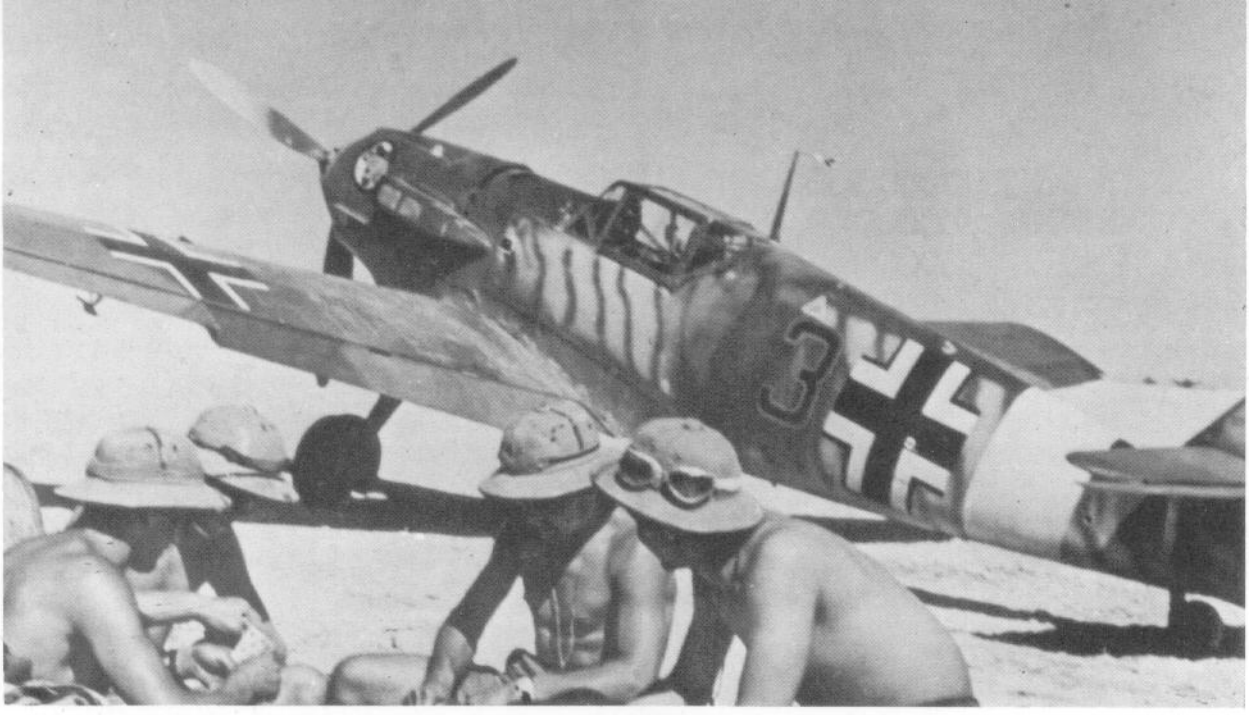


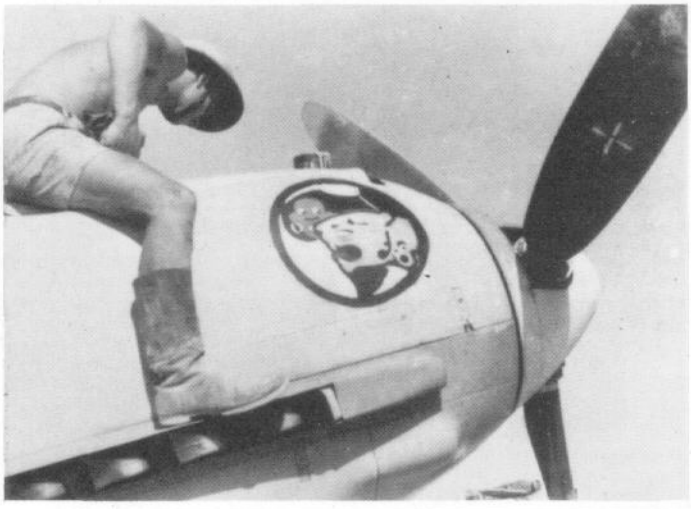
Right: Bf 109E-4Trop's of I./JG 27 over the desert. As may be seen in the lower photograph the green splotches on sand merged well with parts of the desert.
(R. Ward)



Right: Black 4 (thinly outlined in red) on a desert landing-ground. This Bf 109 was in European scheme, green and black green splinter on wings, tailplanes and fuselage top decking, green and grey dapple on pale blue fuselage, white rudder, fuselage band and under wing tips. (R. Ward)







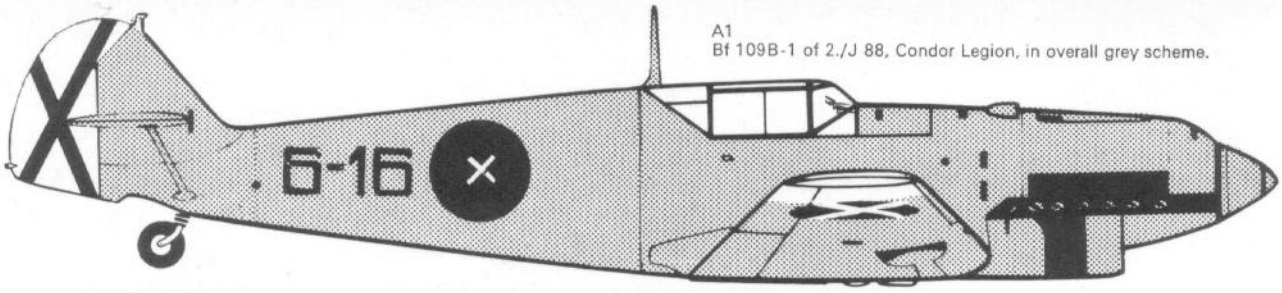
Above: Black 3 (thinly outlined in red) in a far from standard scheme. (R. Ward)

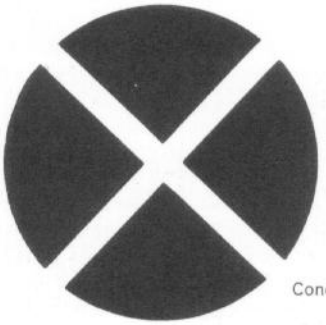
Left: Close-up of the insignia of I./JG 27, upper surfaces of this aircraft were sand only. (Hans Obert)

Below: A Bf 109E-7/U2 of 10.(Jabo)/JG 27 on a North African airfield. (R. Ward)

Bf 109E-7Trop's of 7./JG 26, this unit operated in the Libyan desert campaigns and in the Eastern Mediterranean. (USAF via M. C. Windrow)

A1
Bf 109B-1 of 2./J 88, Condor Legion, in overall grey scheme.



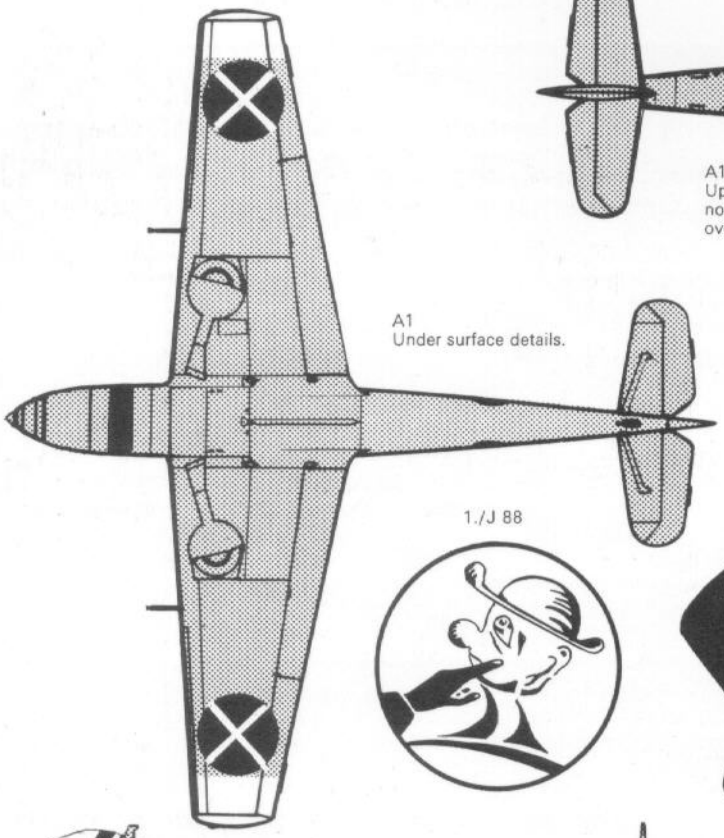


Condor Legion

Pale Grey

Pale Blue

A1
Upper surface details, note roundel slightly overlaps aileron.



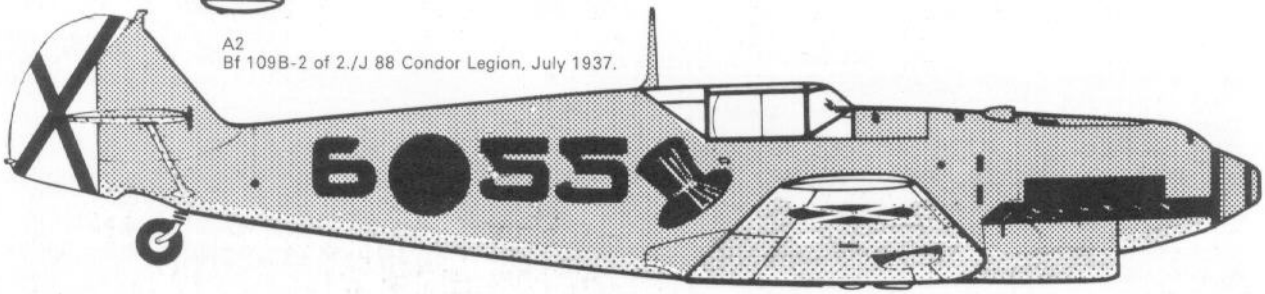
A1
Under surface details.

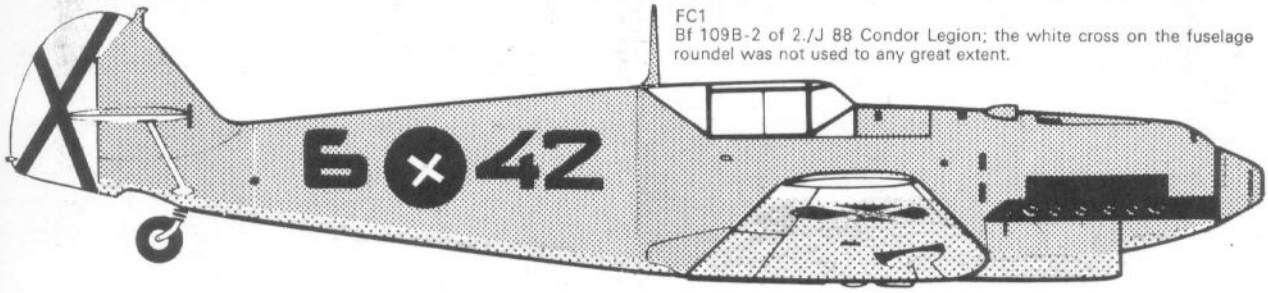
1./J 88

2./J 88

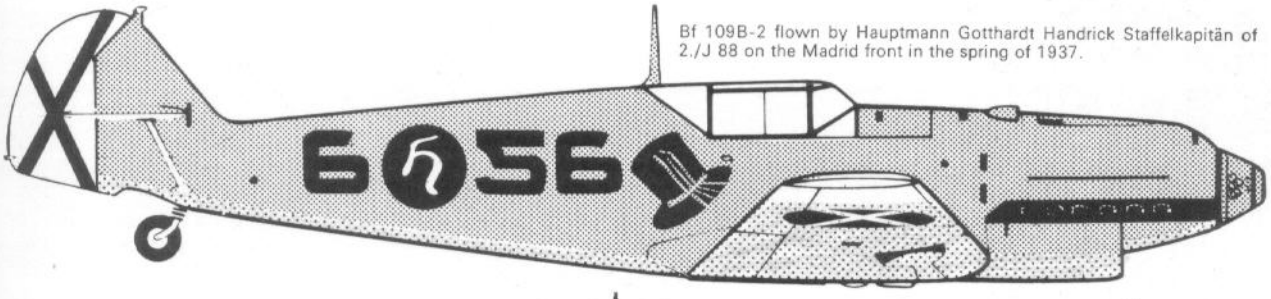
3./J 88

A2
Bf 109B-2 of 2./J 88 Condor Legion, July 1937.

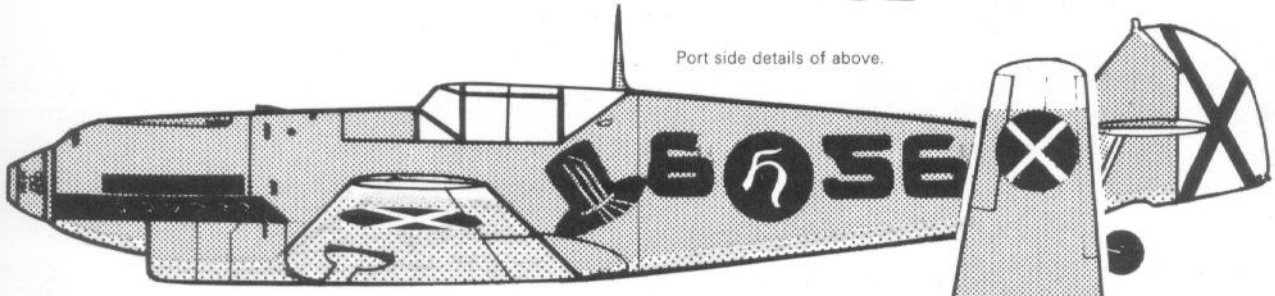




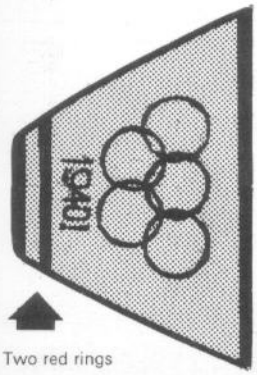
FC1
Bf 109B-2 of 2./J 88 Condor Legion; the white cross on the fuselage roundel was not used to any great extent.



Bf 109B-2 flown by Hauptmann Gotthardt Handrick Staffelkapitän of 2./J 88 on the Madrid front in the spring of 1937.



Port side details of above.

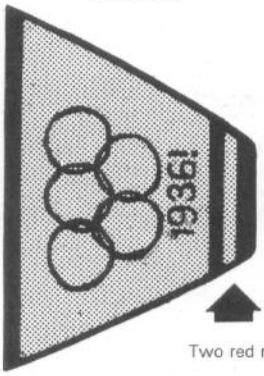


Left: Port and starboard spinner details of the aircraft flown by Handricks.

Olympic rings, top to bottom, right to left; red, green, yellow, white, blue.

1940! black

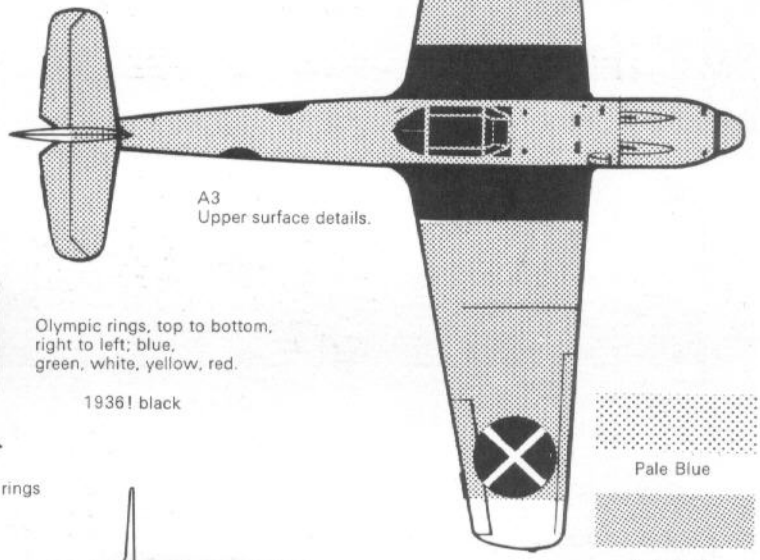
Two red rings



Olympic rings, top to bottom, right to left; blue, green, white, yellow, red.

1936! black

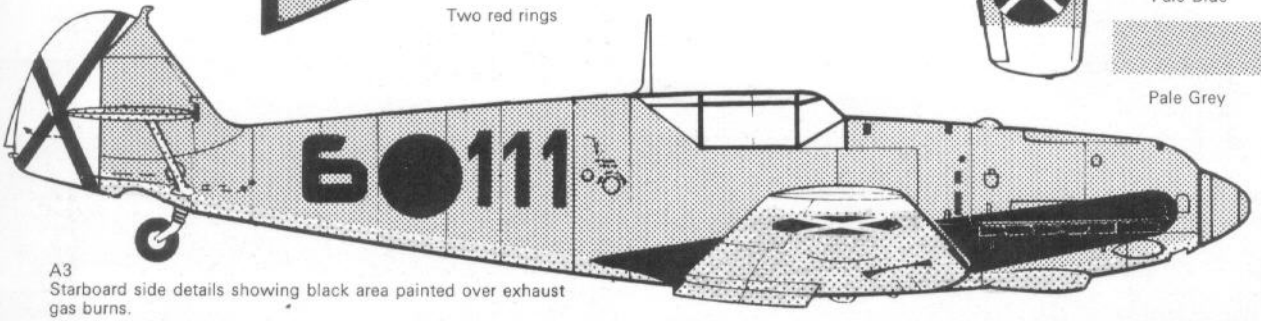
Two red rings



A3
Upper surface details.

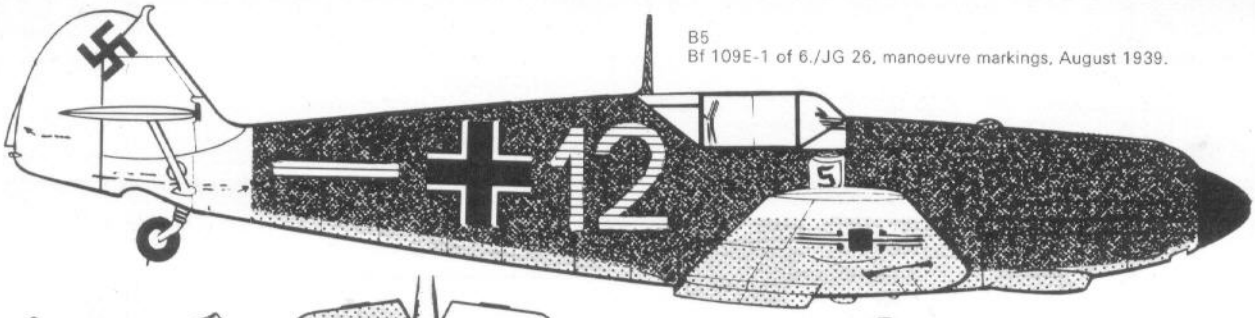
Pale Blue

Pale Grey



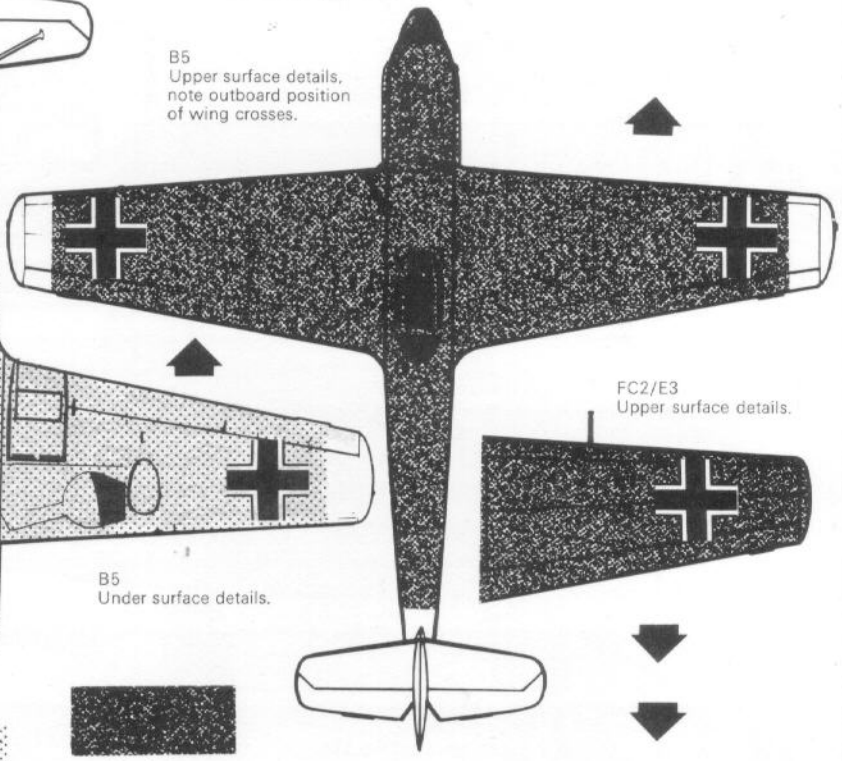
A3
Starboard side details showing black area painted over exhaust gas burns.

B5
Bf 109E-1 of 6./JG 26, manoeuvre markings, August 1939.



JG 26 "Schlageter".
Black on white with black lining.

B5
Upper surface details,
note outboard position
of wing crosses.



FC2/E3
Upper surface details.

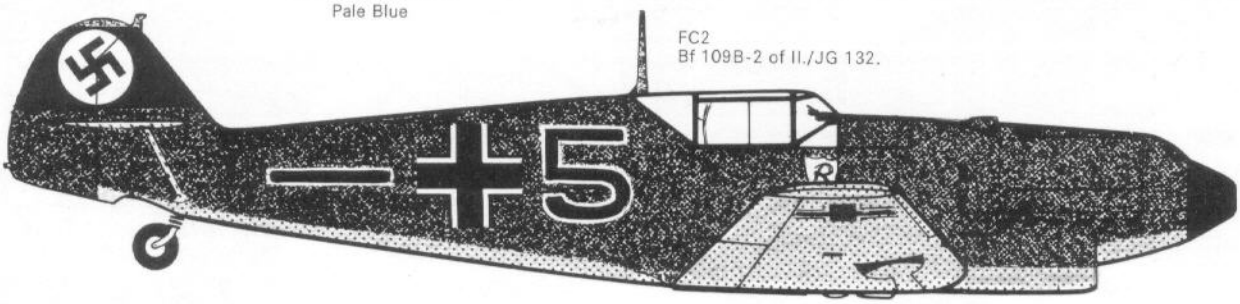
FC2/E3
Under surface details.

B5
Under surface details.

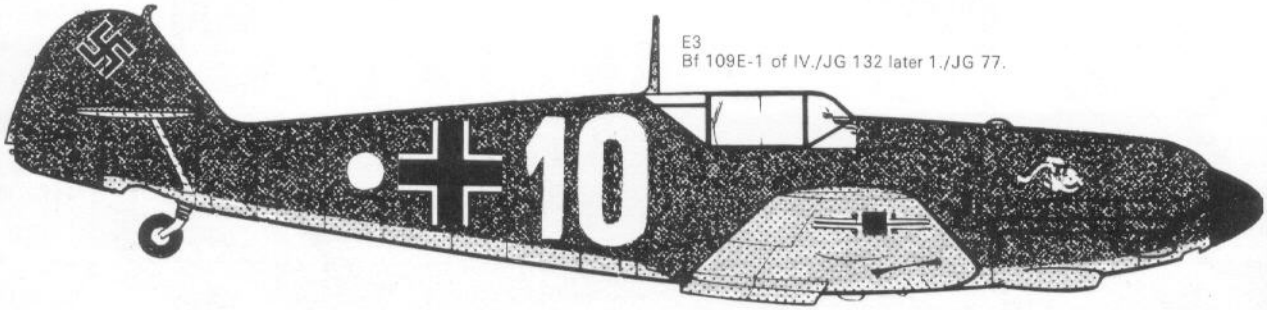
Pale Blue

Black Green

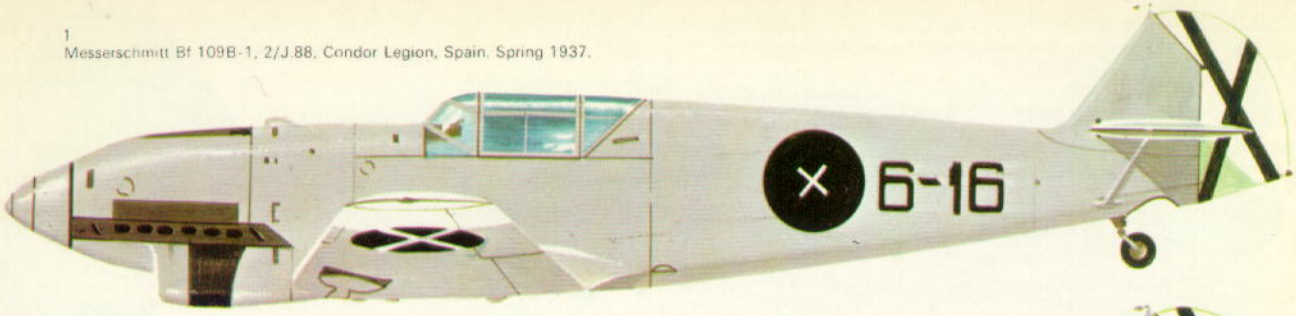
FC2
Bf 109B-2 of II./JG 132.



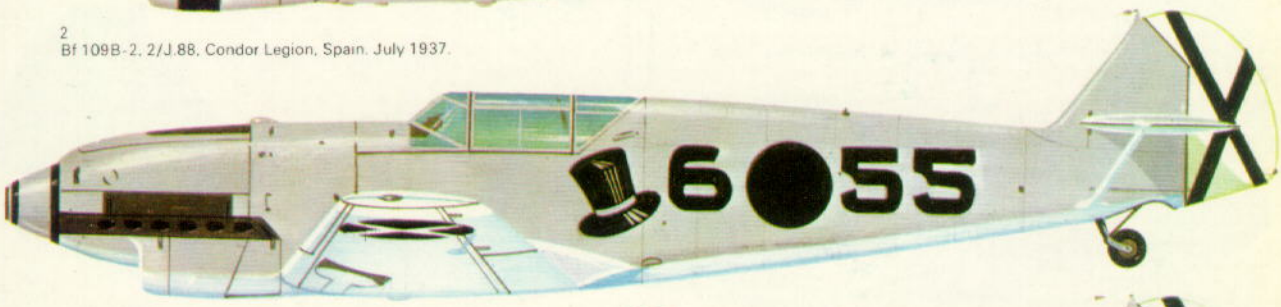
E3
Bf 109E-1 of IV./JG 132 later 1./JG 77.



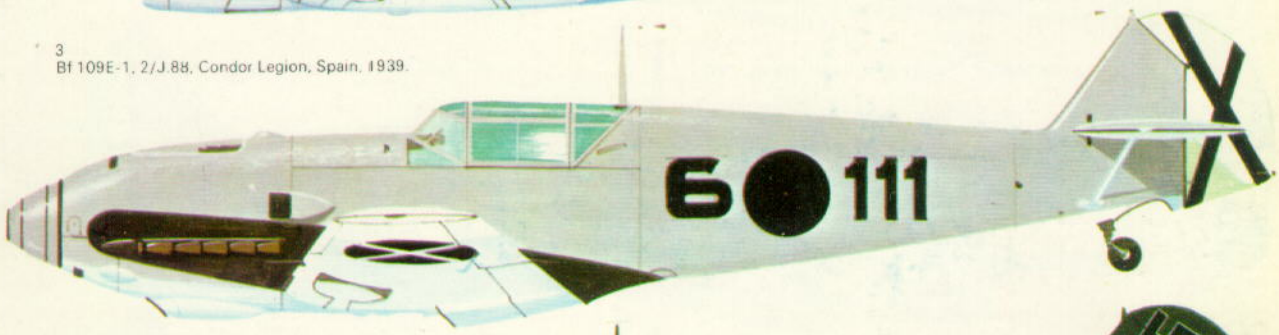
1
Messerschmitt Bf 109B-1, 2/J.88, Condor Legion, Spain, Spring 1937.



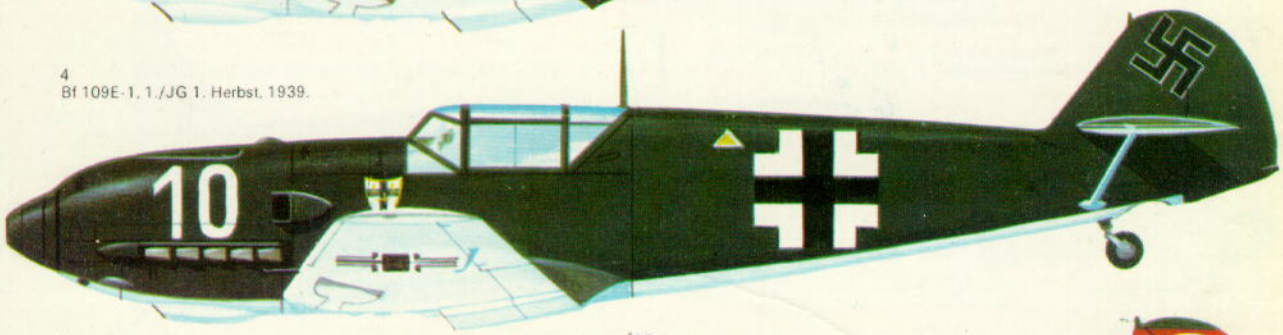
2
Bf 109B-2, 2/J.88, Condor Legion, Spain, July 1937.



3
Bf 109E-1, 2/J.88, Condor Legion, Spain, 1939.

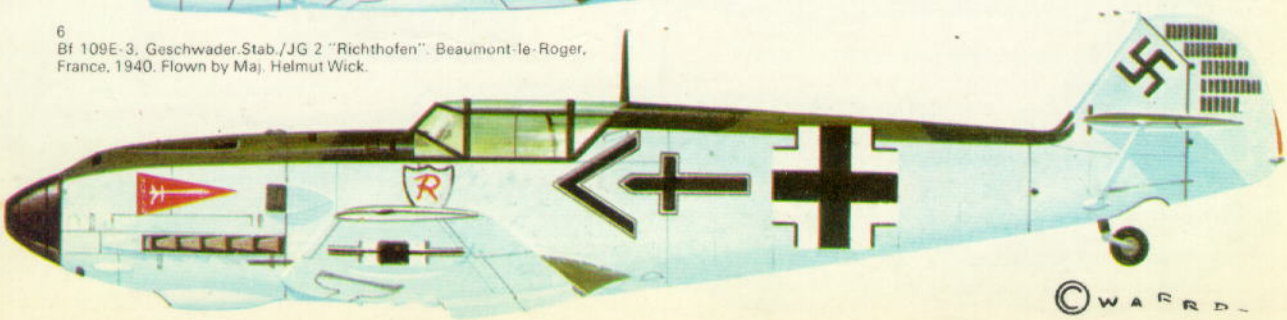


4
Bf 109E-1, 1./JG 1, Herbst, 1939.



5
Bf 109C-2, 1./JG 132 "Richthofen", Karlsbad, Czechoslovakia, October 1938.

6
Bf 109E-3, Geschwader.Stab./JG 2 "Richthofen", Beaumont-le-Roger, France, 1940. Flown by Maj. Helmut Wick.



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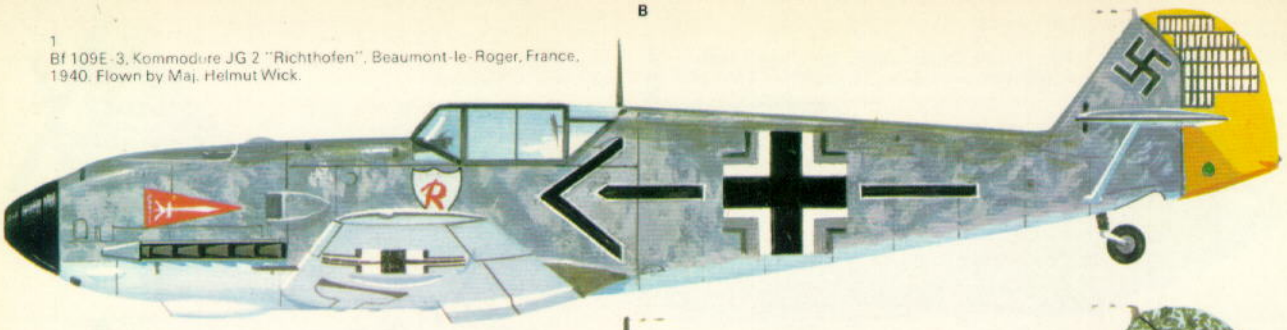
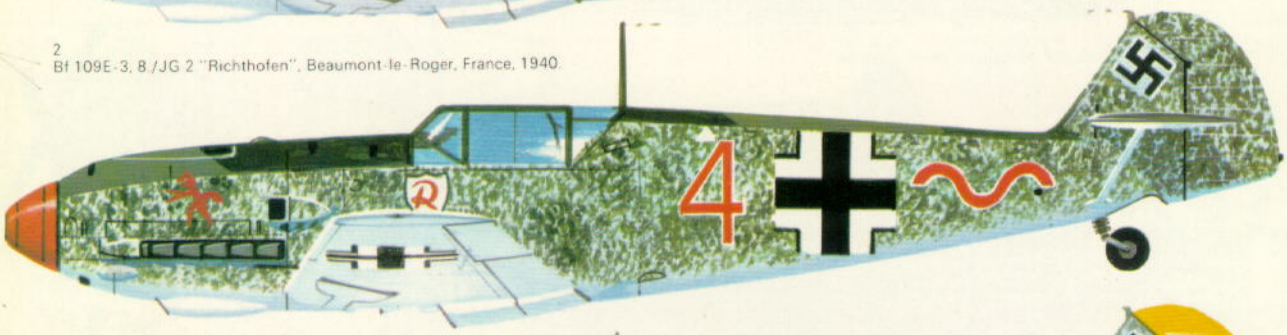
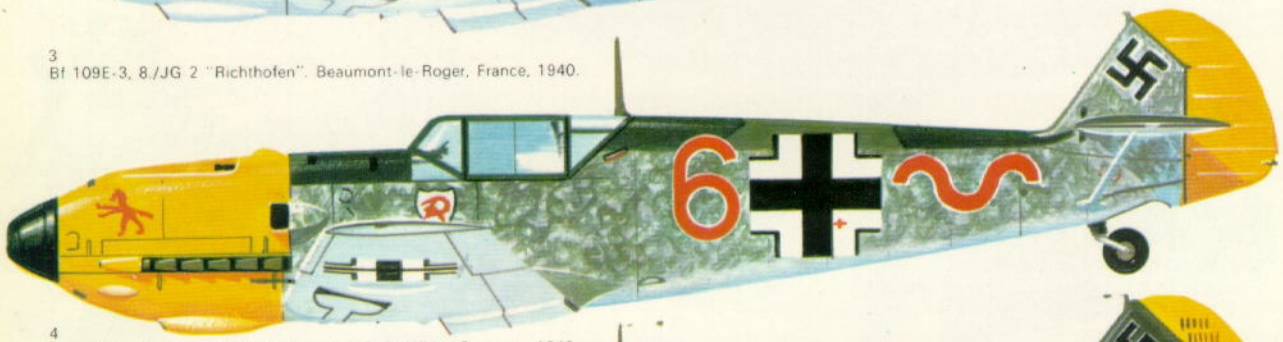
1
Bf 109E-3, Kommodore JG 2 "Richthofen", Beaumont-le-Roger, France, 1940. Flown by Maj. Helmut Wick.



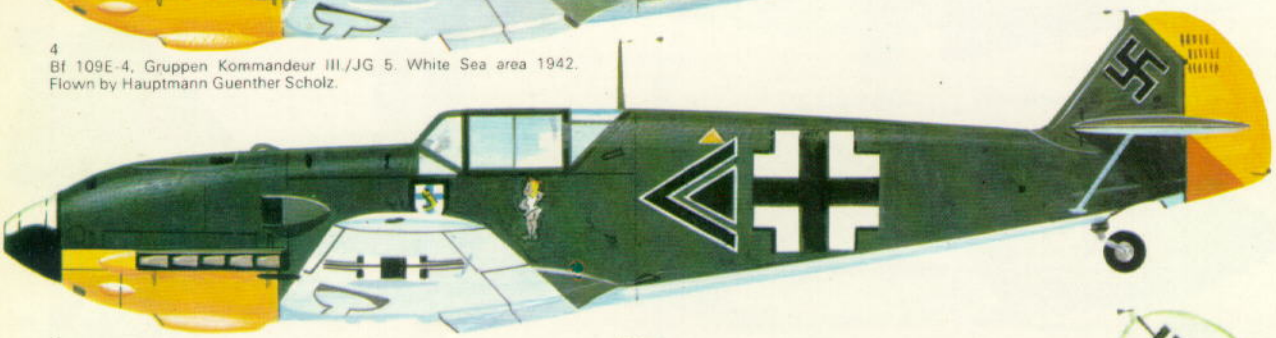
2
Bf 109E-3, 8./JG 2 "Richthofen", Beaumont-le-Roger, France, 1940.



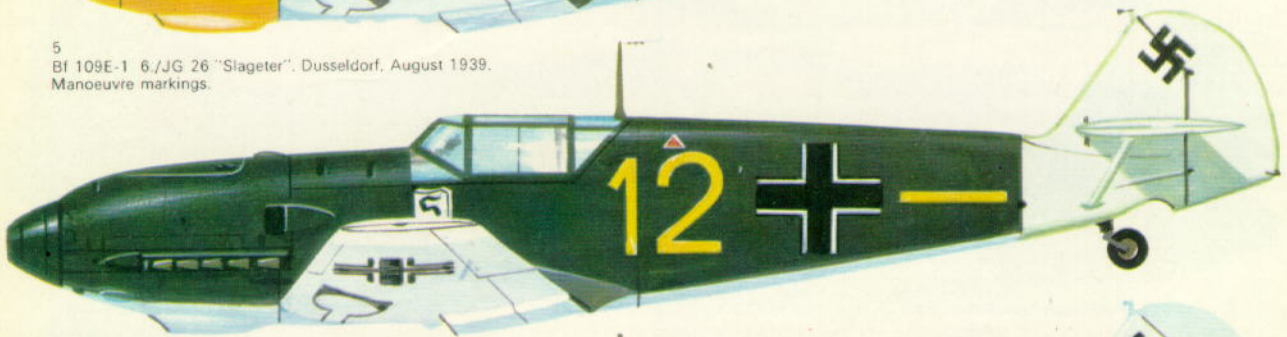
3
Bf 109E-3, 8./JG 2 "Richthofen", Beaumont-le-Roger, France, 1940.



4
Bf 109E-4, Gruppen Kommandeur III./JG 5. White Sea area 1942. Flown by Hauptmann Guenther Scholz.



5
Bf 109E-1 6./JG 26 "Slageter", Dusseldorf, August 1939. Manoeuvre markings.



6
Bf 109E-3, 9./JG 26 "Slageter", Caffiers, France, 1940.

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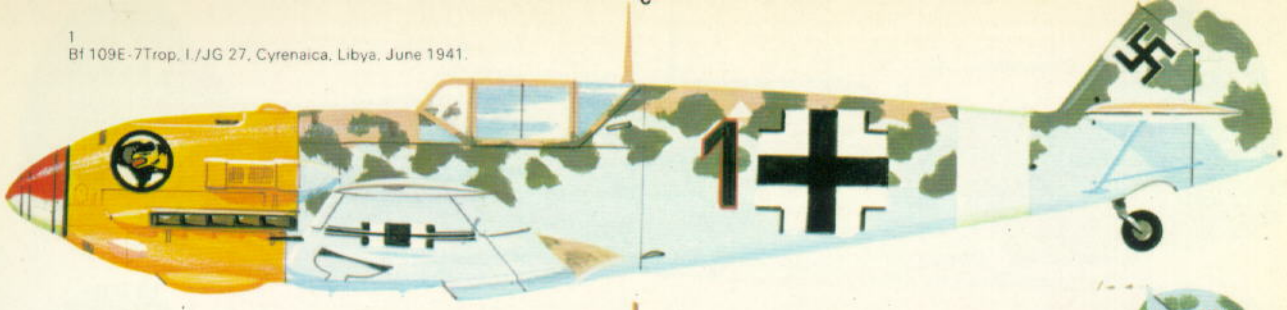
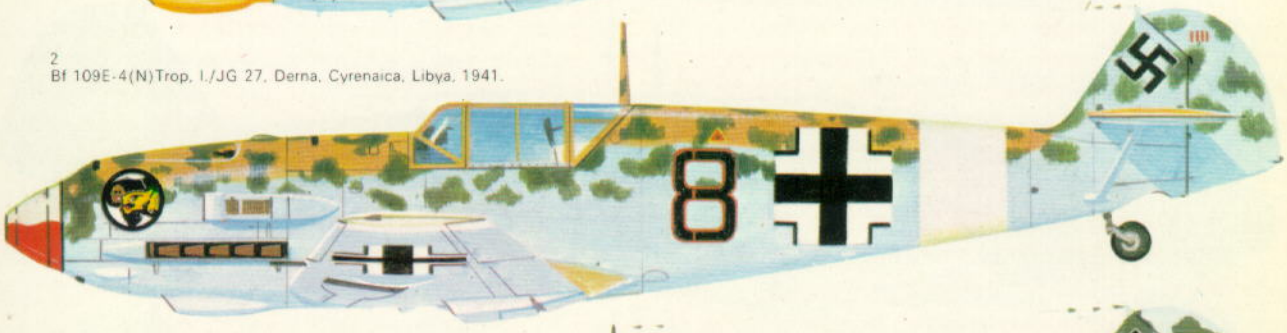
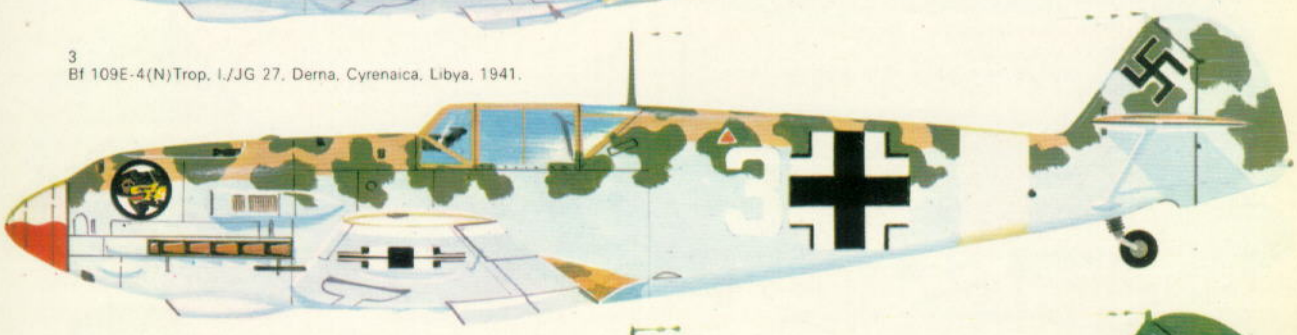
1
Bf 109E-7Trop, I./JG 27, Cyrenaica, Libya, June 1941.



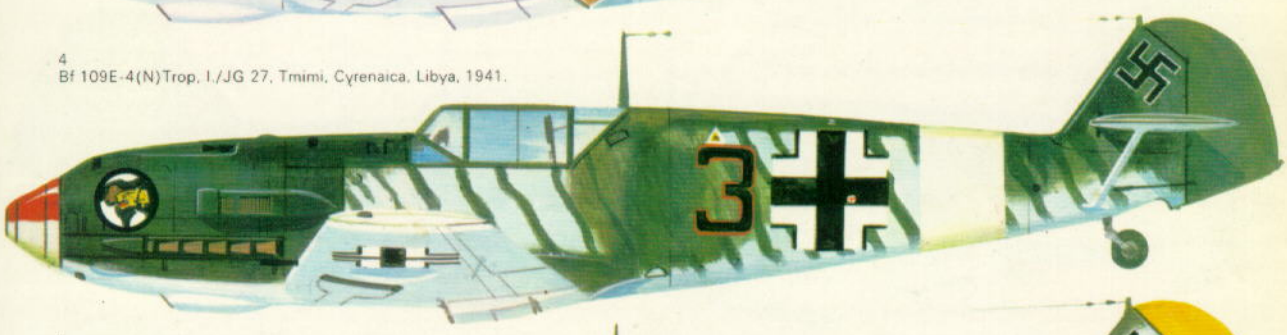
2
Bf 109E-4(N)Trop, I./JG 27, Derna, Cyrenaica, Libya, 1941.



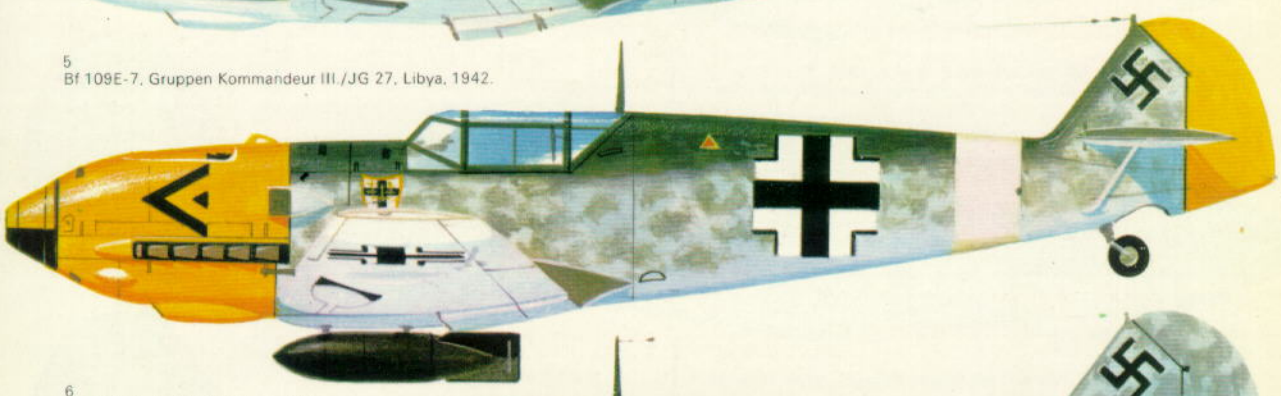
3
Bf 109E-4(N)Trop, I./JG 27, Derna, Cyrenaica, Libya, 1941.



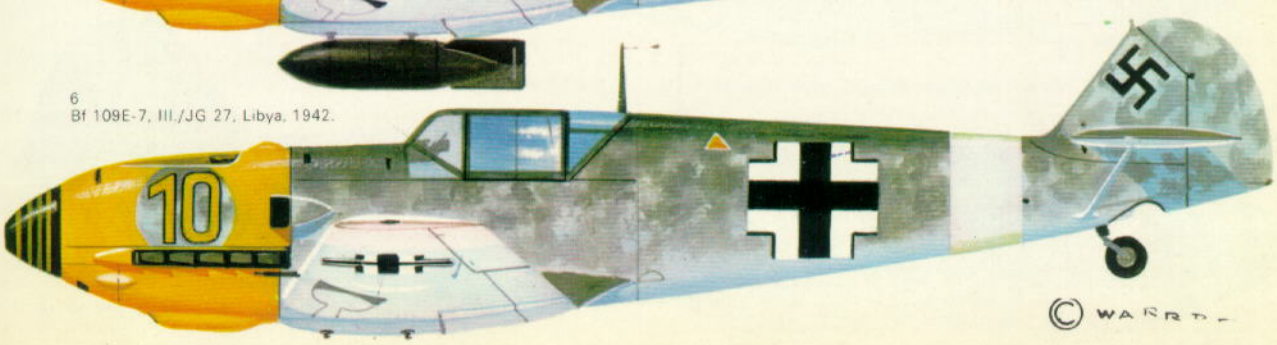
4
Bf 109E-4(N)Trop, I./JG 27, Tmimi, Cyrenaica, Libya, 1941.



5
Bf 109E-7, Gruppen Kommandeur III./JG 27, Libya, 1942.



6
Bf 109E-7, III./JG 27, Libya, 1942.



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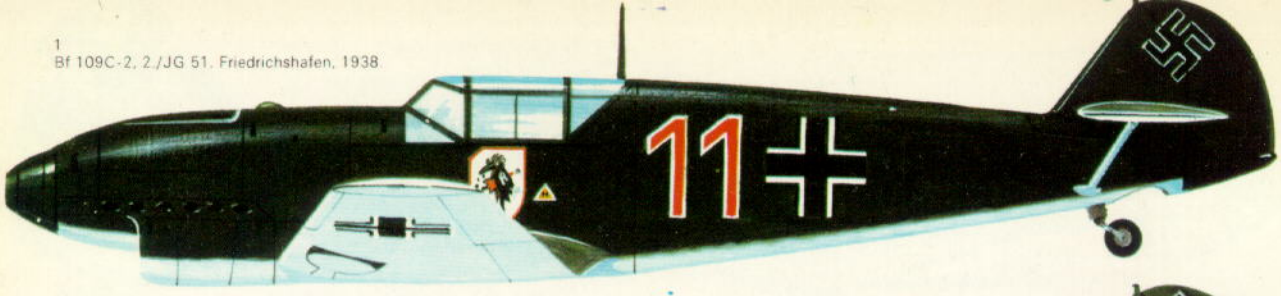
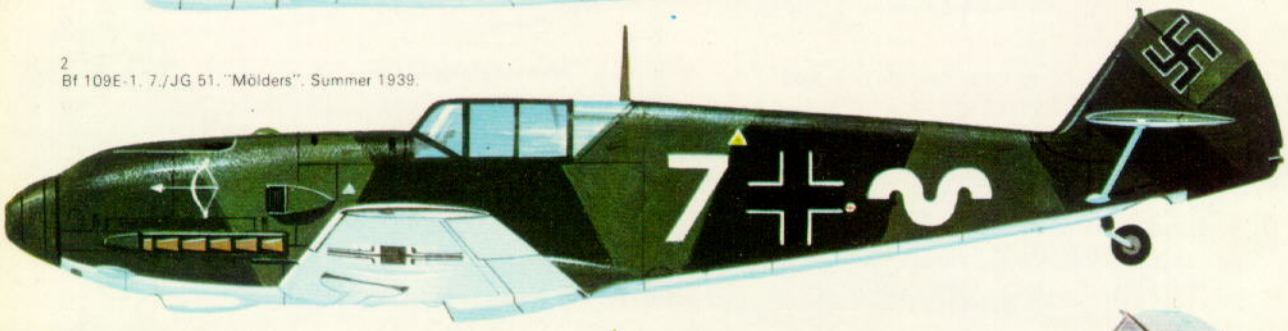
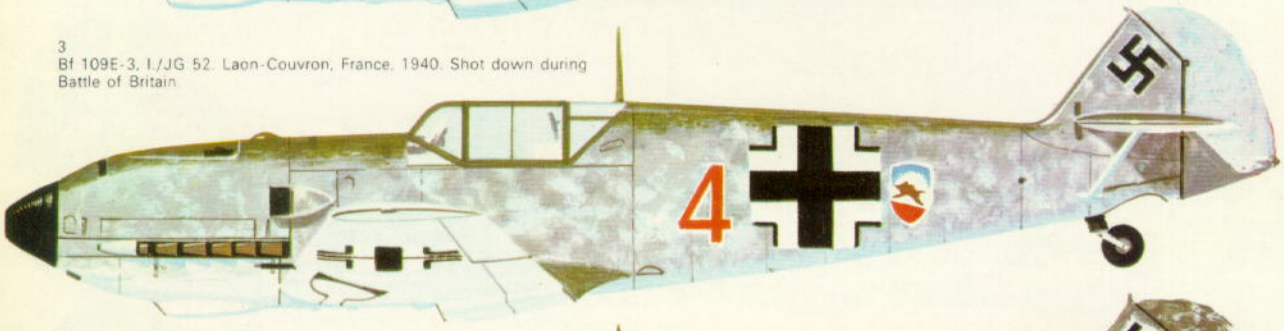
1
Bf 109C-2, 2./JG 51, Friedrichshafen, 1938.



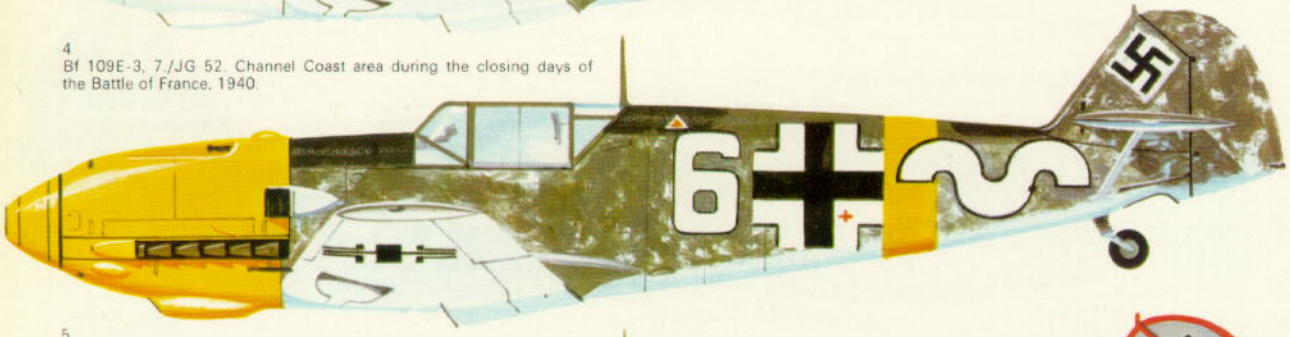
2
Bf 109E-1, 7./JG 51, "Mölders", Summer 1939.



3
Bf 109E-3, I./JG 52, Laon-Couvron, France, 1940. Shot down during Battle of Britain.

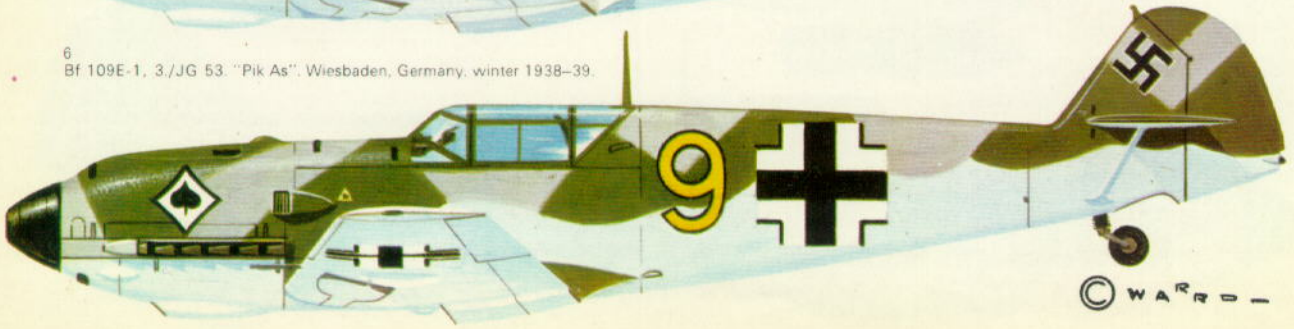


4
Bf 109E-3, 7./JG 52, Channel Coast area during the closing days of the Battle of France, 1940.



5
Bf 109E-3, 1./JG 53, Dinan/Trelivan, France, 1940. Shot down at Langley, Eastbourne, Sussex, on the afternoon of the 30th September.

6
Bf 109E-1, 3./JG 53, "Pik As", Wiesbaden, Germany, winter 1938–39.



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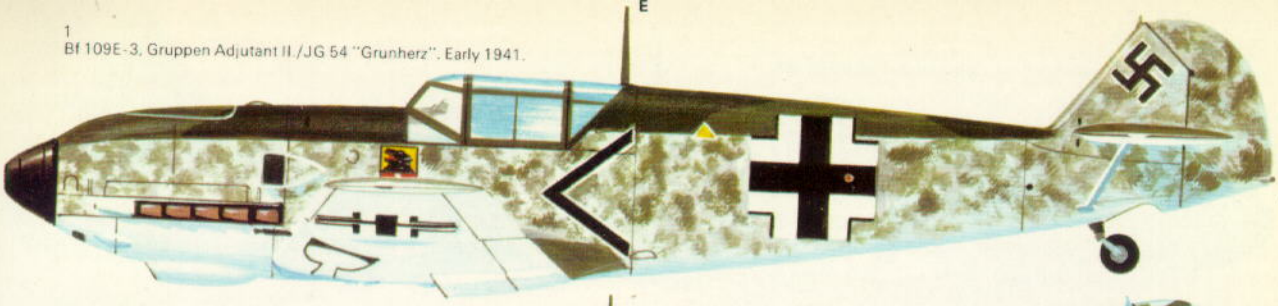
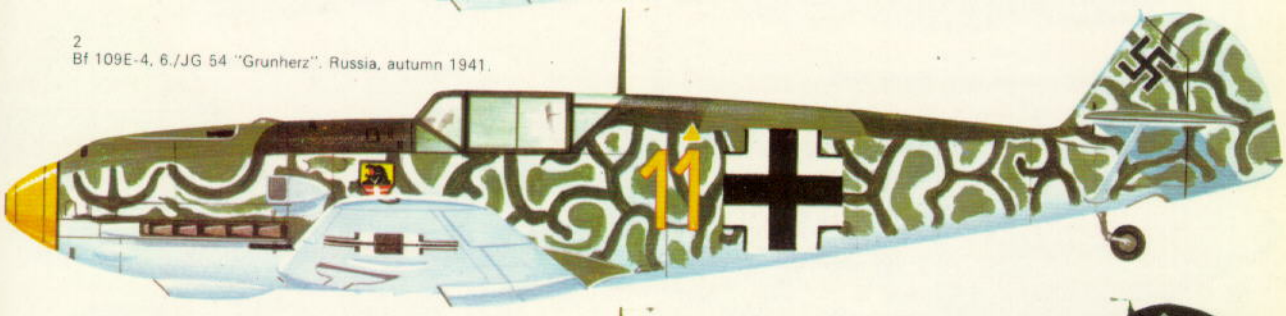
E

1
Bf 109E-3, Gruppen Adjutant II./JG 54 "Grunherz". Early 1941.

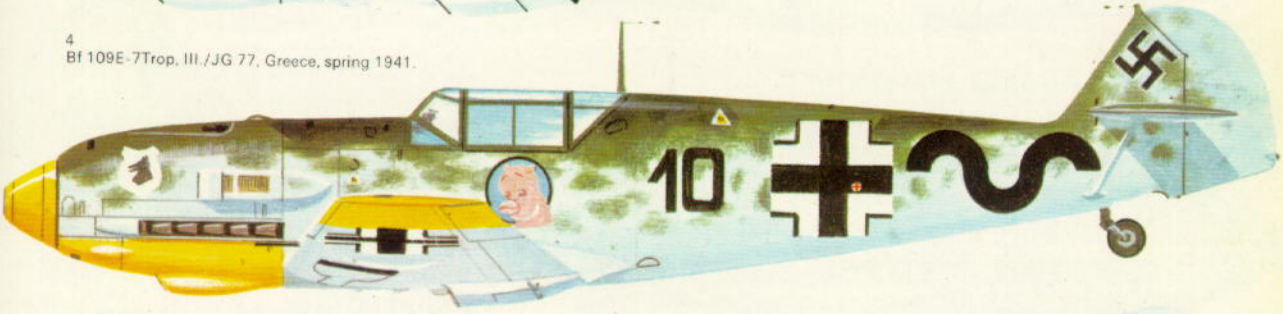


2
Bf 109E-4, 6./JG 54 "Grunherz". Russia, autumn 1941.

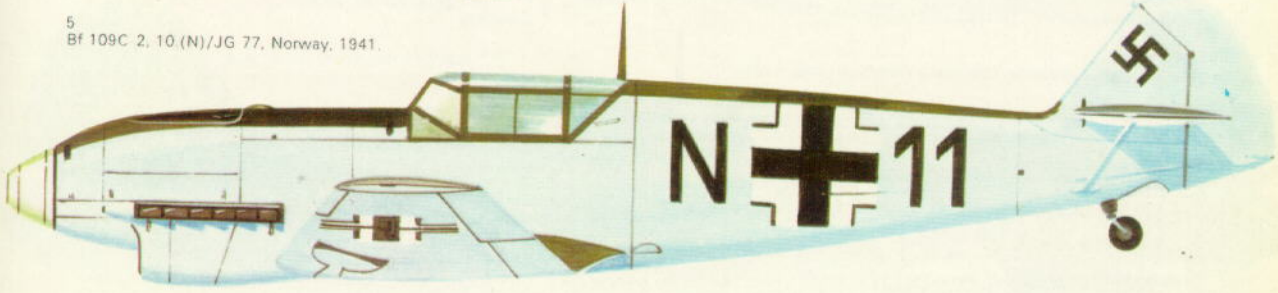


3
Bf 109E-1, IV./JG 132 later I./JG 77. June 1939.

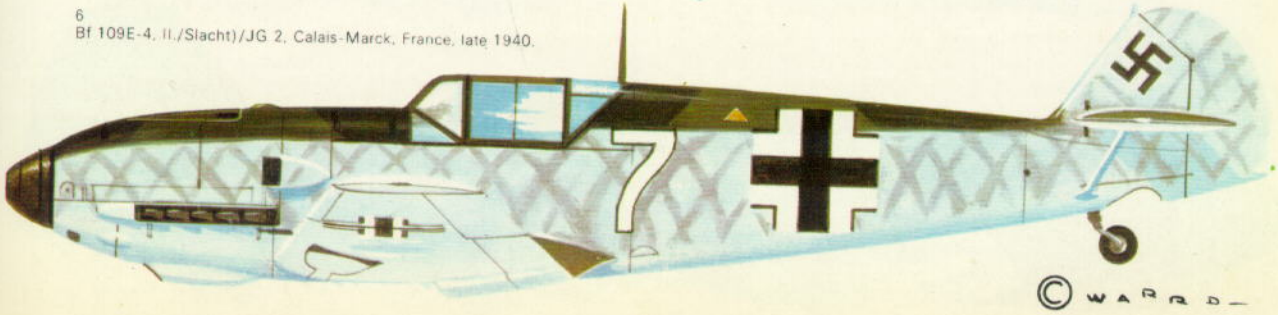
4
Bf 109E-7Trop, III./JG 77. Greece, spring 1941.



5
Bf 109C 2, 10.(N)/JG 77, Norway, 1941.



6
Bf 109E-4, II./Slacht)/JG 2, Calais-Marck, France, late 1940.



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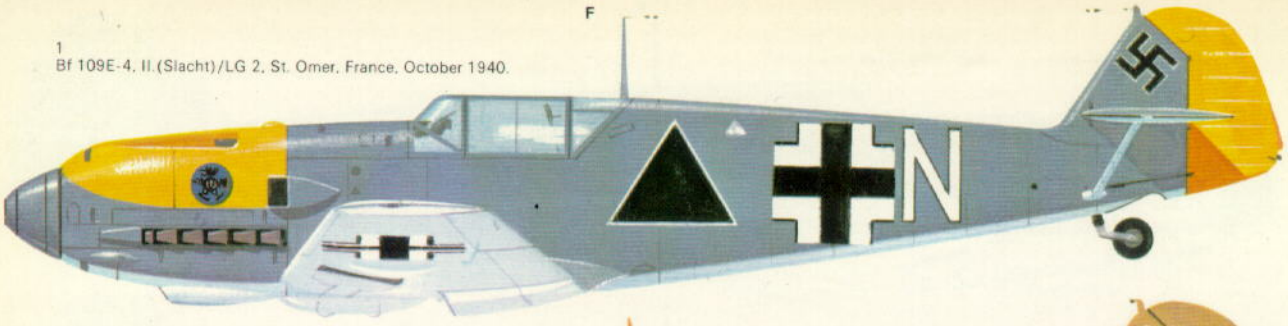
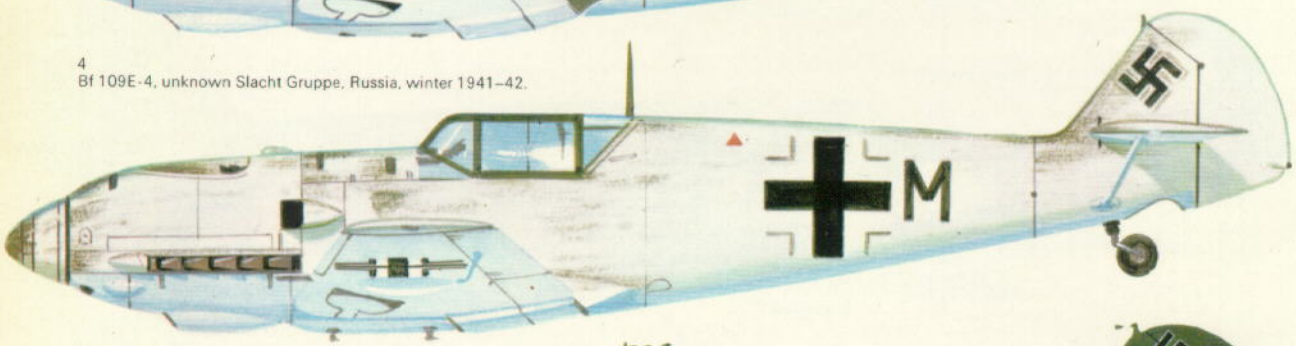
1
Bf 109E-4, II.(Slacht)/LG 2, St. Omer, France, October 1940.



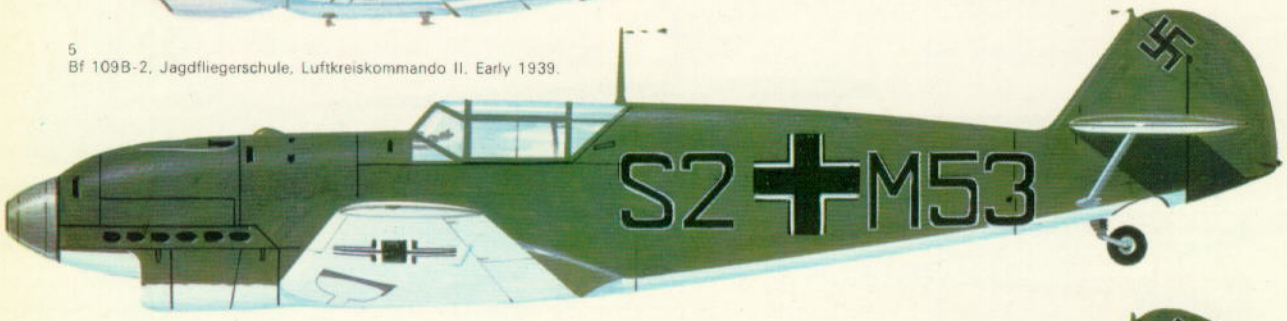
2
Bf 109E-4, 8./SKG 210, El Daba, Egypt, October 1942.

3
Bf 109E-4, Staff Flight III./ZG 1
"Wespen", Prague, 1944.

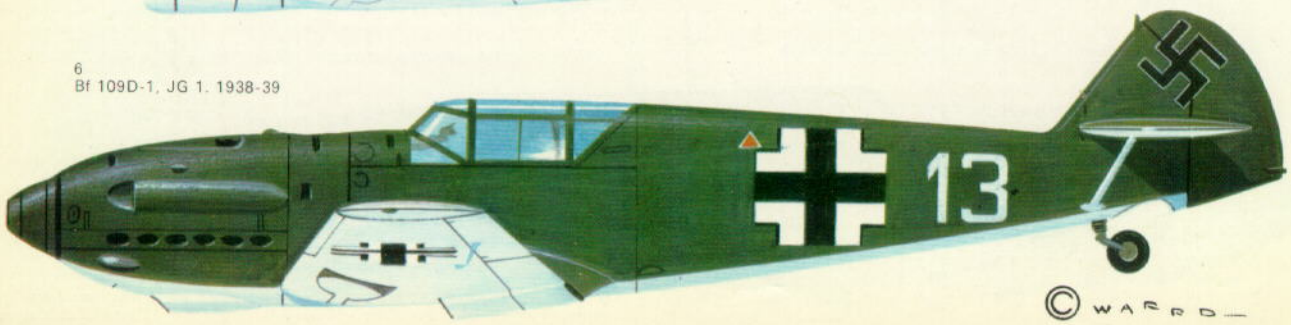
4
Bf 109E-4, unknown Slacht Gruppe, Russia, winter 1941–42.



5
Bf 109B-2, Jagdfliegerschule, Luftkreiskommando II, Early 1939.



6
Bf 109D-1, JG 1, 1938-39



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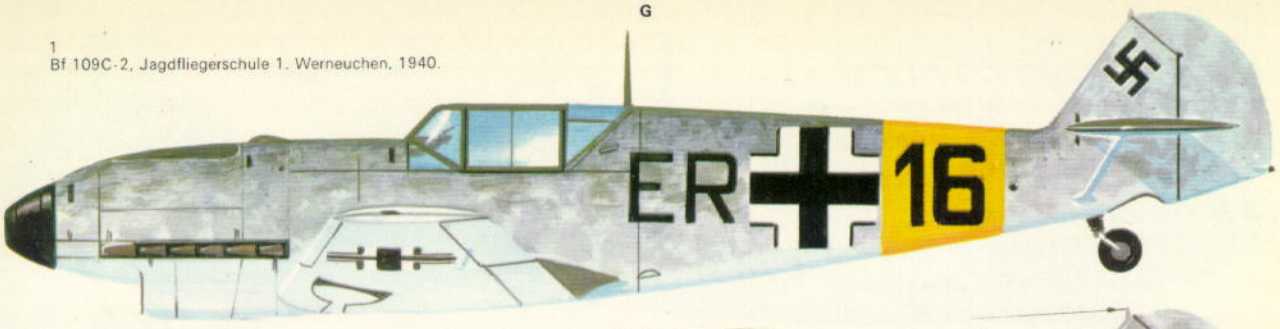
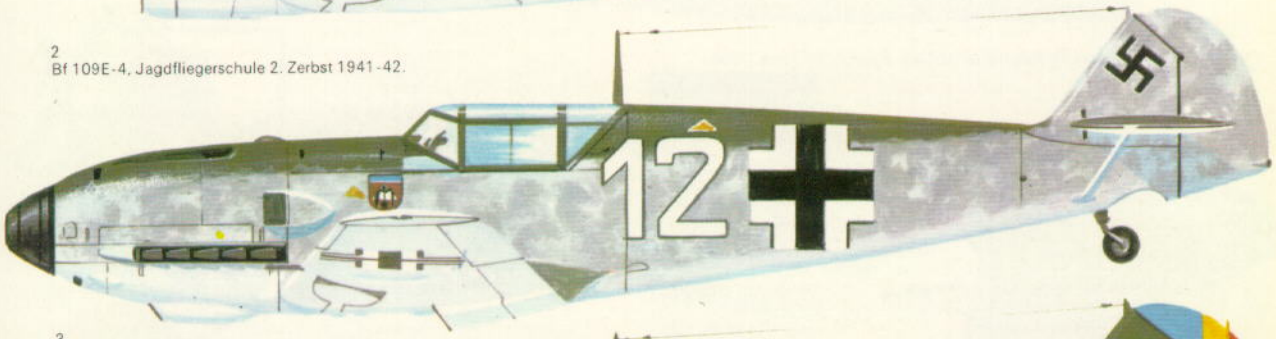
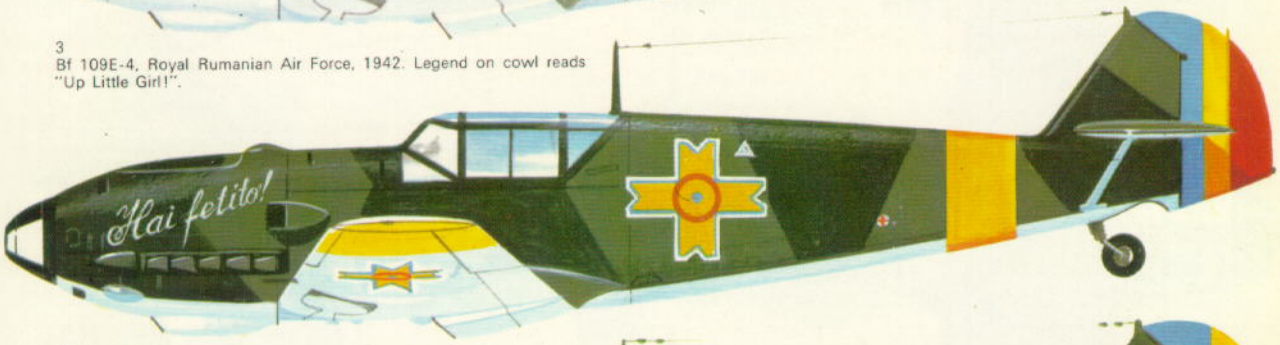
1
Bf 109C-2, Jagdfliegerschule 1. Werneuchen, 1940.



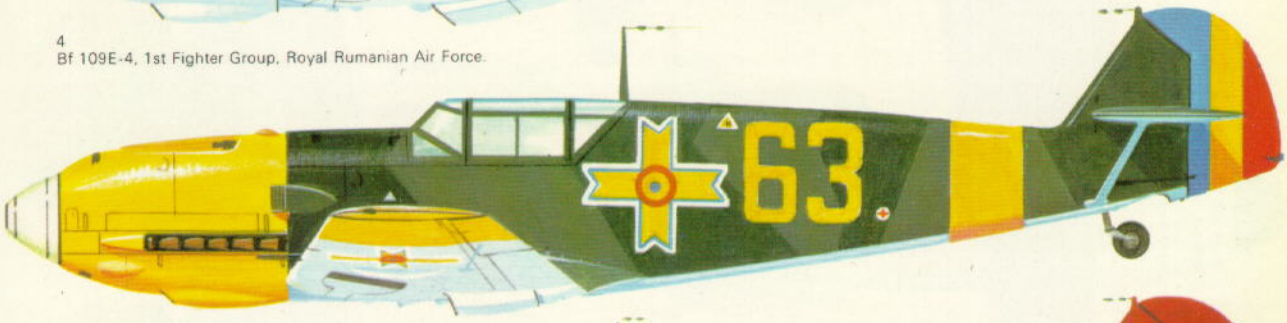
2
Bf 109E-4, Jagdfliegerschule 2. Zerbst 1941-42.



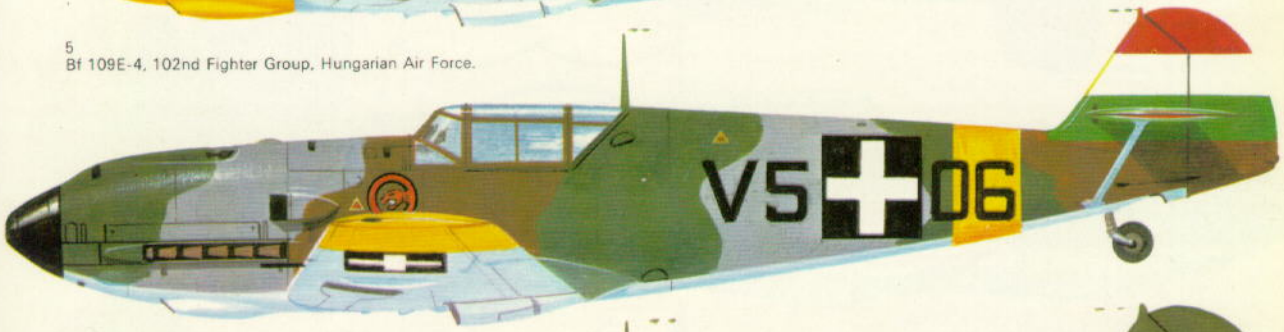
3
Bf 109E-4, Royal Rumanian Air Force, 1942. Legend on cowl reads "Up Little Girl!".



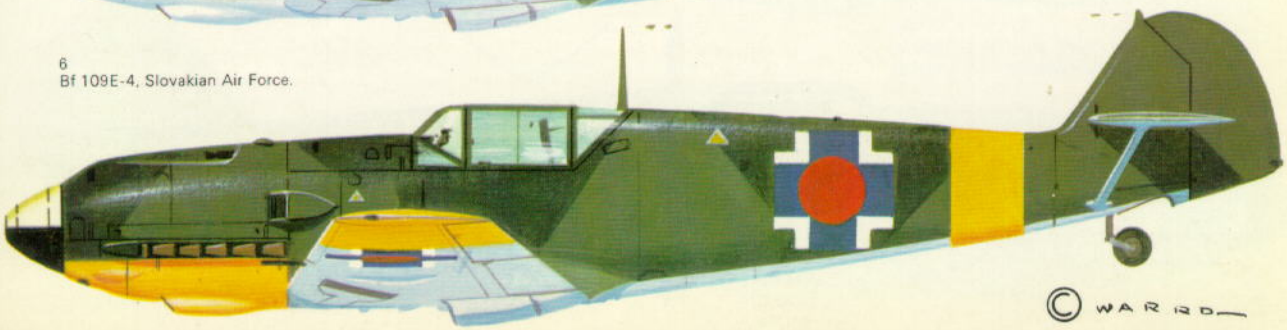
4
Bf 109E-4, 1st Fighter Group, Royal Rumanian Air Force.



5
Bf 109E-4, 102nd Fighter Group, Hungarian Air Force.



6
Bf 109E-4, Slovakian Air Force.



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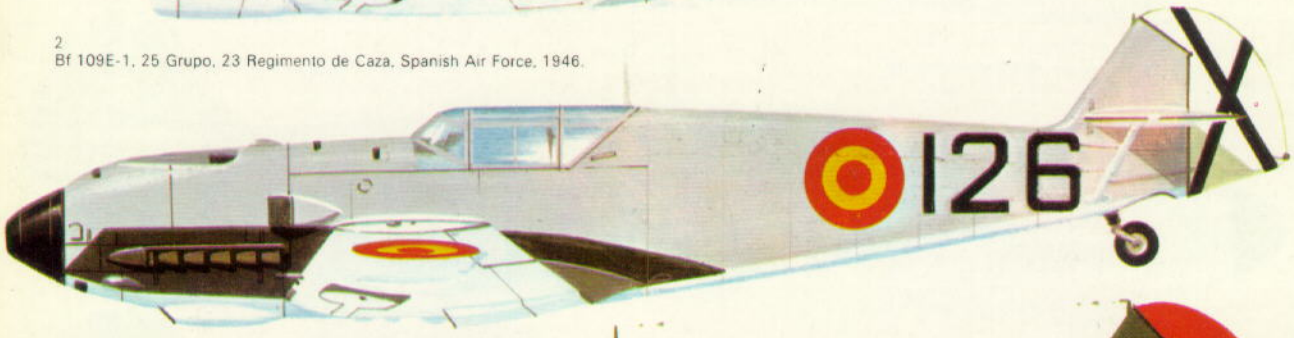
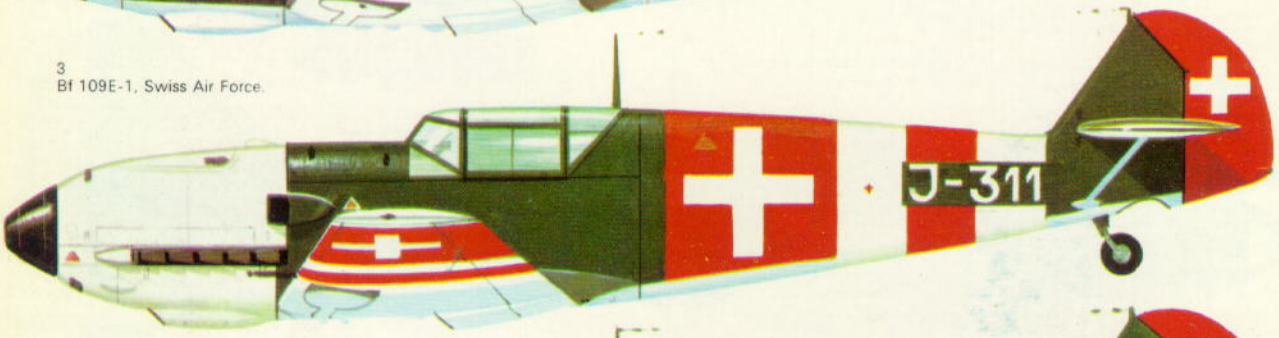
1
Bf 109B-2, Escuela de Caza, Moron de la Frontera, Spanish Air Force, 1945.

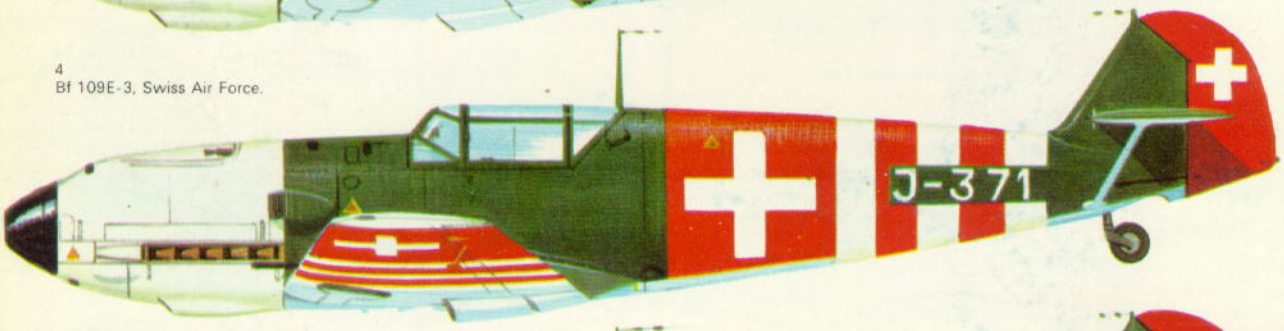
2
Bf 109E-1, 25 Grupo, 23 Regimento de Caza, Spanish Air Force, 1946.



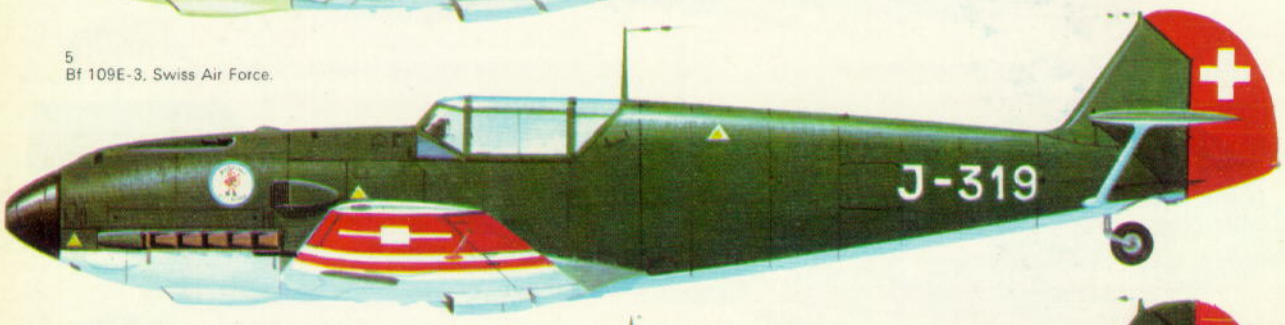
3
Bf 109E-1, Swiss Air Force.



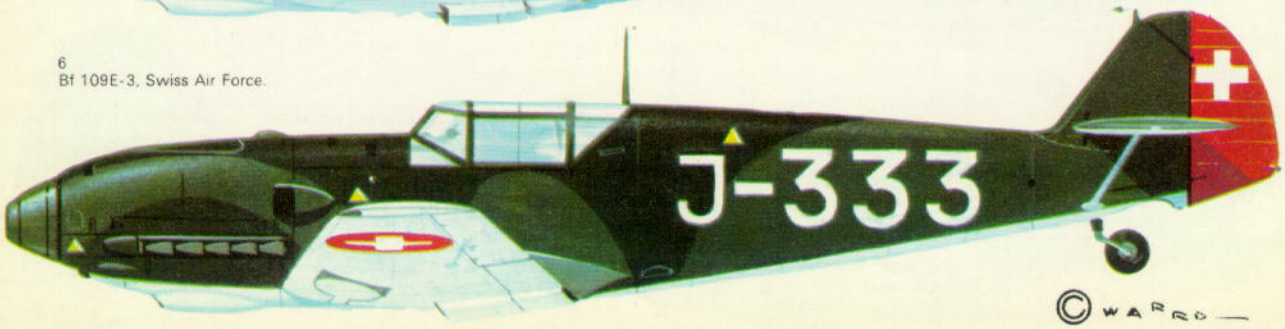
4
Bf 109E-3, Swiss Air Force.



5
Bf 109E-3, Swiss Air Force.



6
Bf 109E-3, Swiss Air Force.



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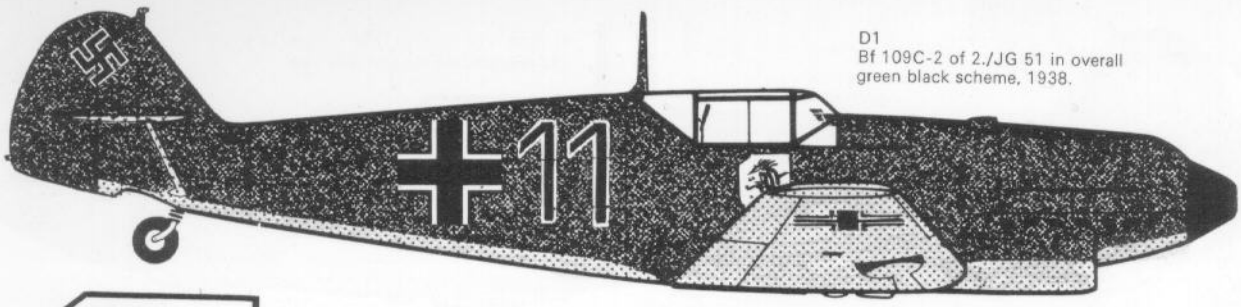


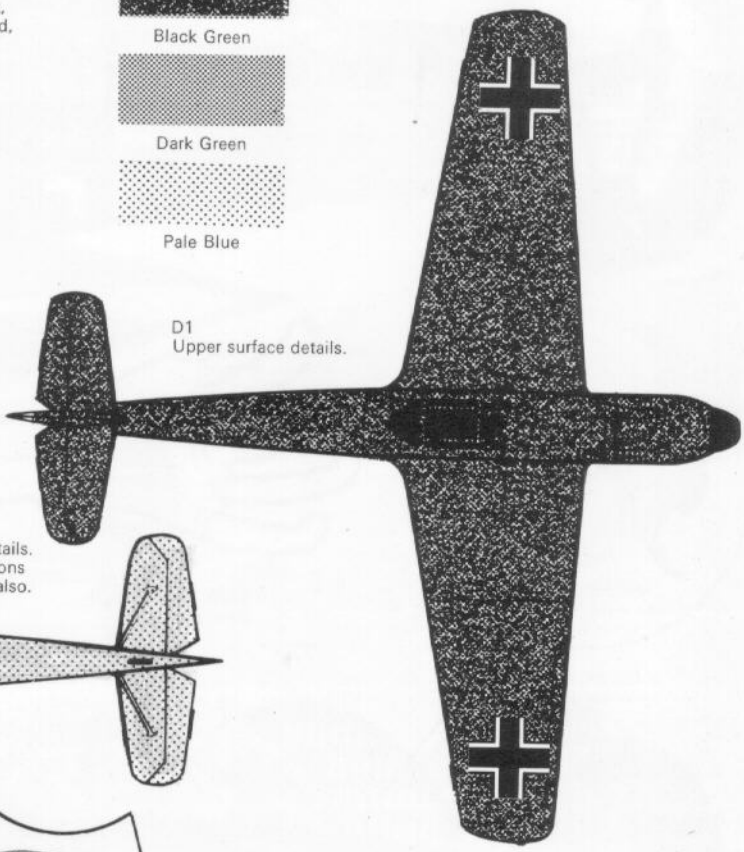
D1
Bf 109C-2 of 2./JG 51 in overall green black scheme, 1938.

II./JG 51 Mölders.
White shield outlined black, brown, black and white bird, red umbrella with black and white details.

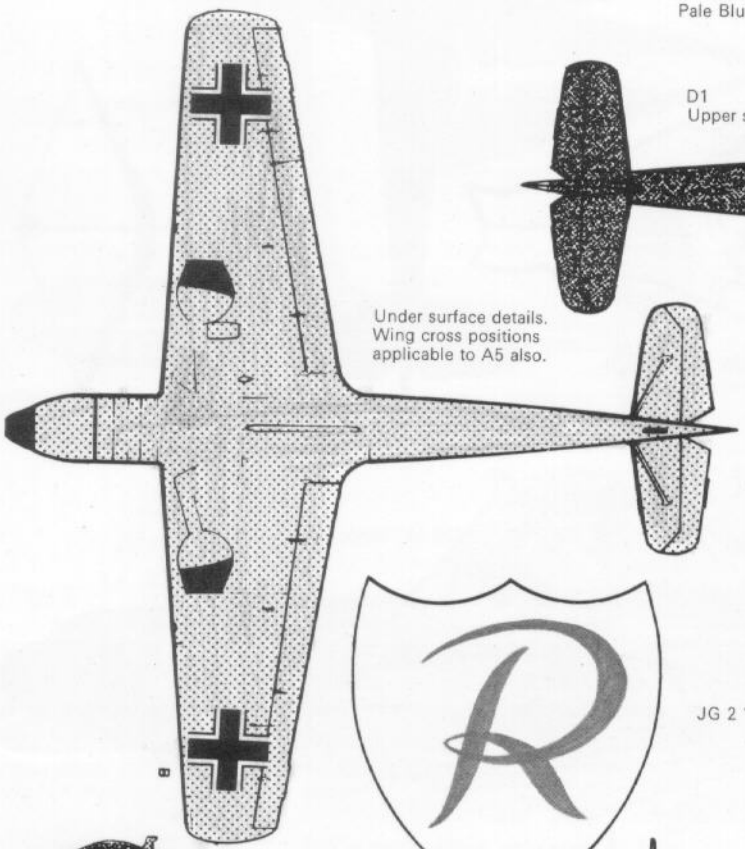
Black Green

Dark Green

Pale Blue

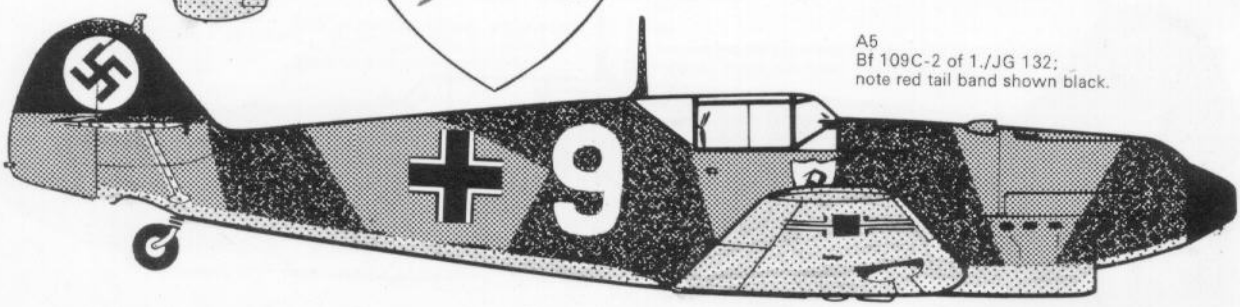


D1
Upper surface details.

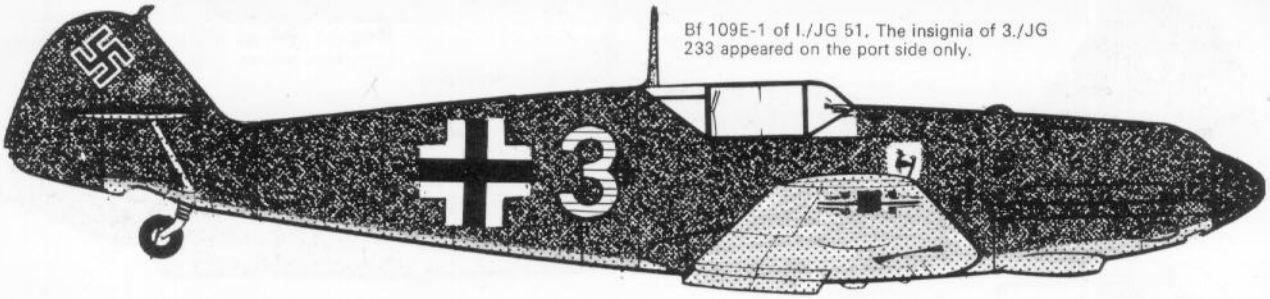


Under surface details.
Wing cross positions applicable to A5 also.

JG 2 "Richthofen". Red R on silver shield.

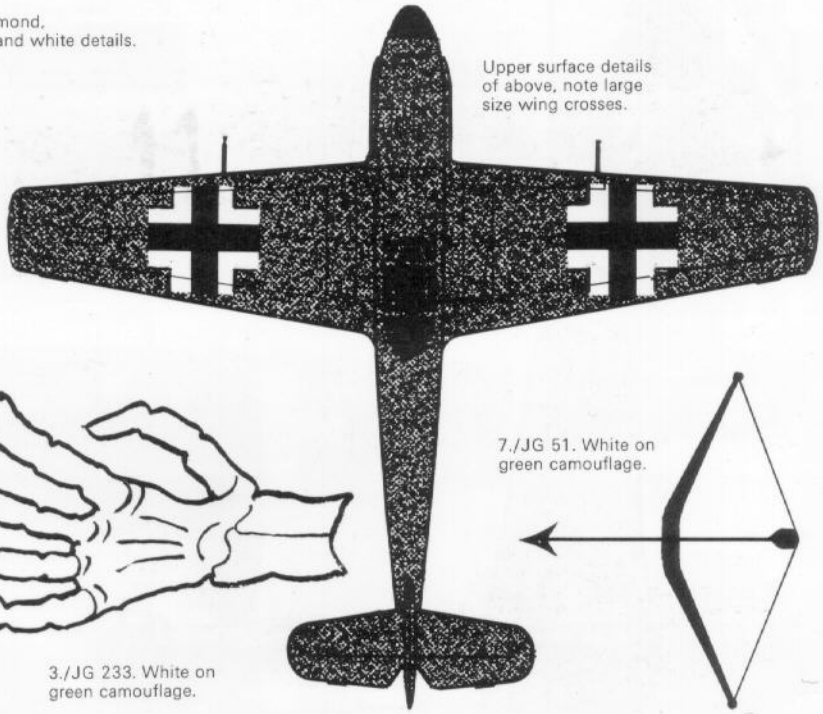


A5
Bf 109C-2 of 1./JG 132;
note red tail band shown black.



Bf 109E-1 of I./JG 51. The insignia of 3./JG 233 appeared on the port side only.

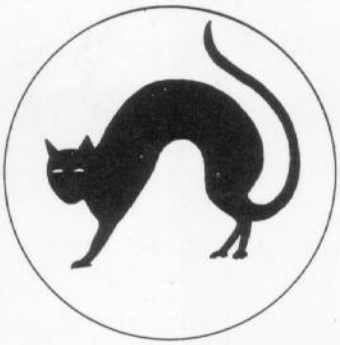
I./JG 51. White diamond, grey ground, black and white details.



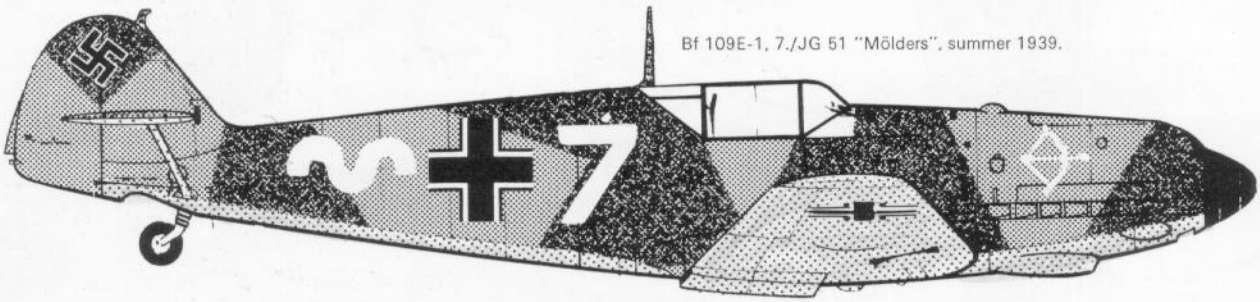
Upper surface details of above, note large size wing crosses.

3./JG 233. White on green camouflage.

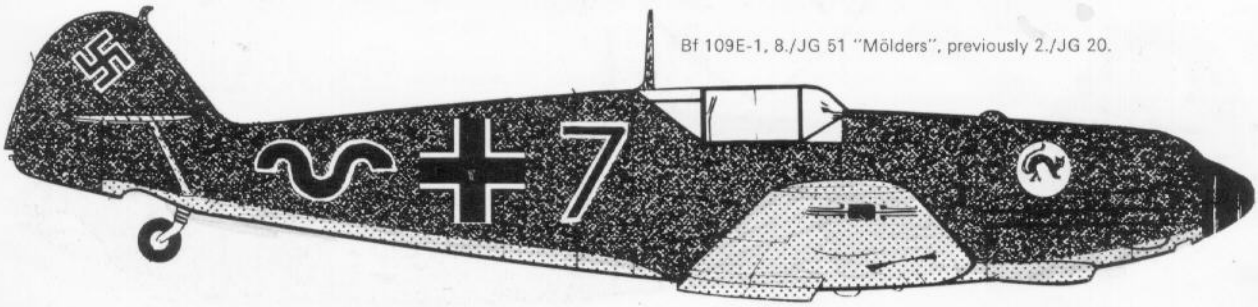
7./JG 51. White on green camouflage.



8./JG 51. Black cat on white disc.

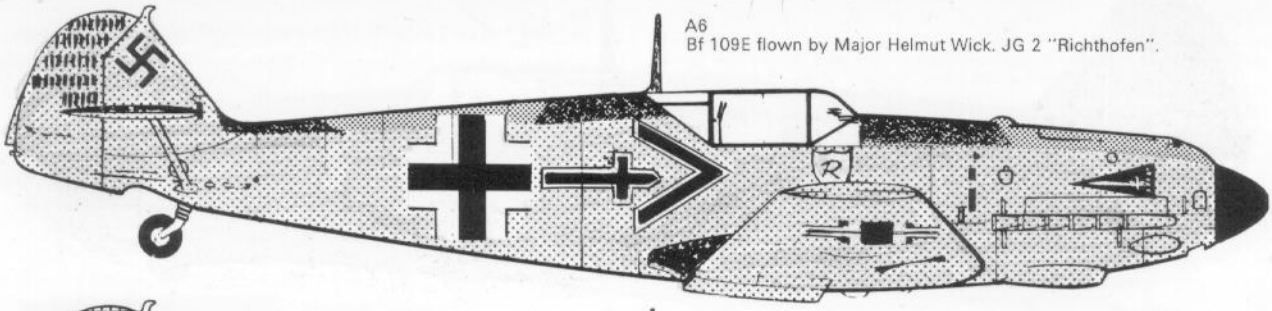


Bf 109E-1, 7./JG 51 "Mölders", summer 1939.

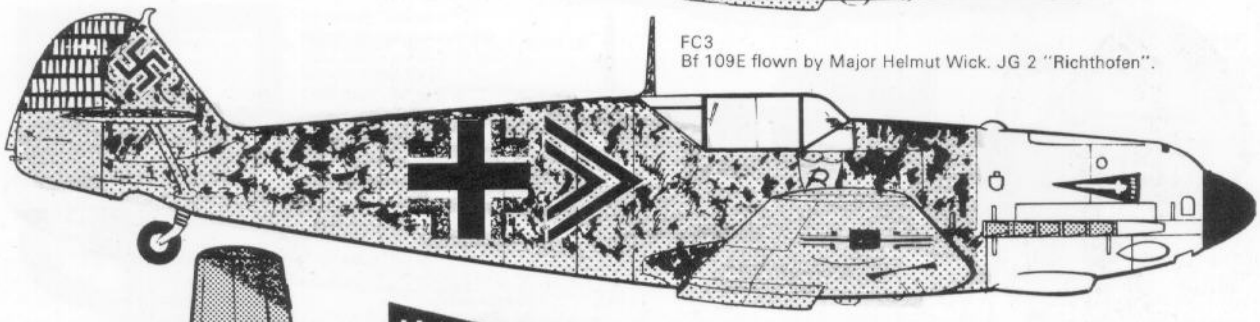


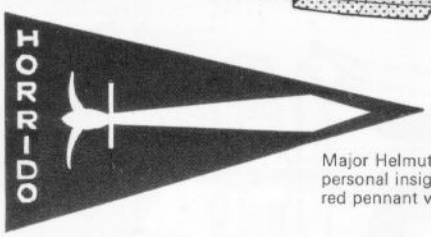
Bf 109E-1, 8./JG 51 "Mölders", previously 2./JG 20.

A6
Bf 109E flown by Major Helmut Wick. JG 2 "Richthofen".



FC3
Bf 109E flown by Major Helmut Wick. JG 2 "Richthofen".



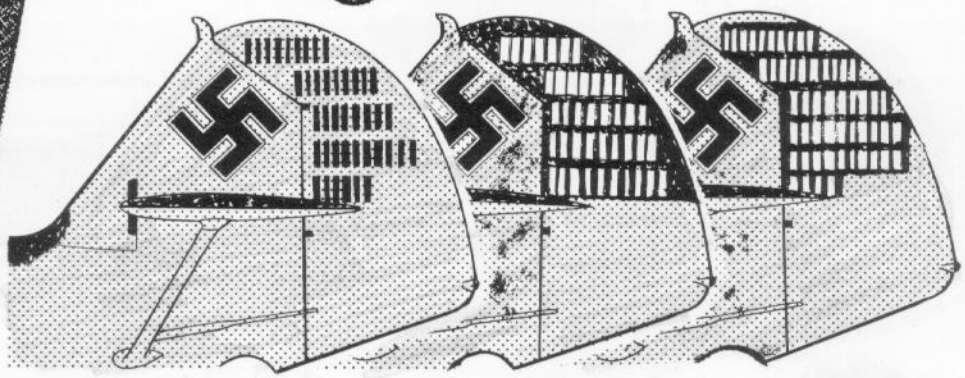


Major Helmut Wick's
personal insignia,
red pennant white details.

JG 2 "Richthofen".
Red R on silver shield.

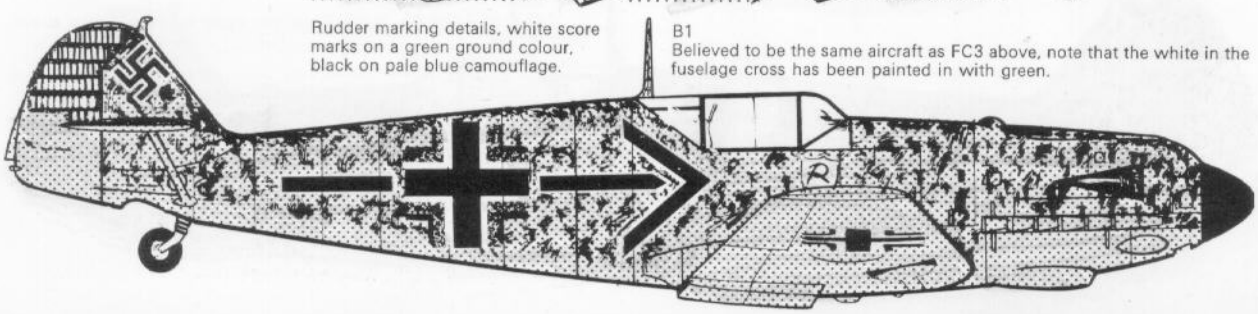
Upper surface details
of the two aircraft.

Grey dapple
on Pale Blue

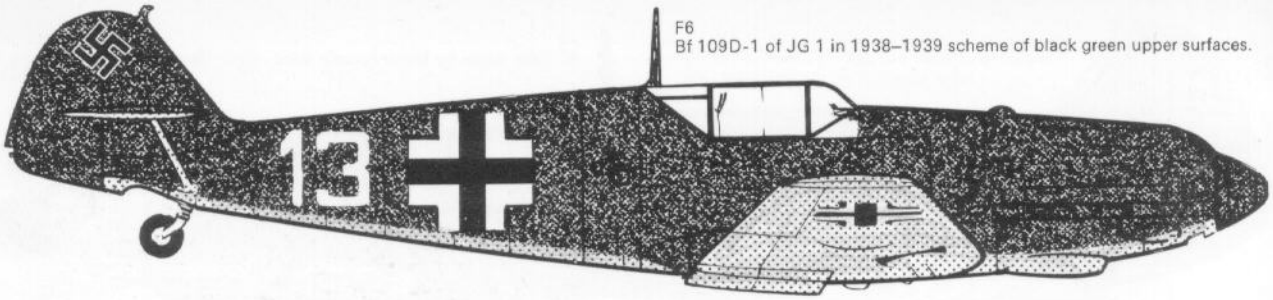


Rudder marking details, white score
marks on a green ground colour,
black on pale blue camouflage.

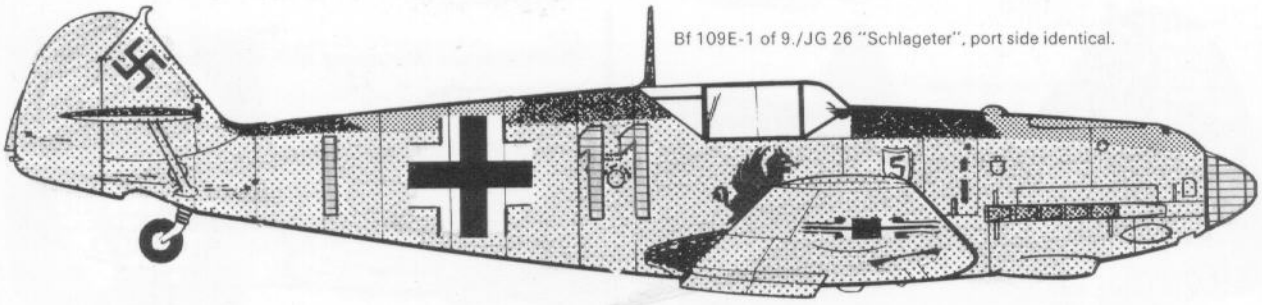
B1
Believed to be the same aircraft as FC3 above, note that the white in the fuselage cross has been painted in with green.



F6
Bf 109D-1 of JG 1 in 1938–1939 scheme of black green upper surfaces.



Bf 109E-1 of 9./JG 26 "Schlageter", port side identical.



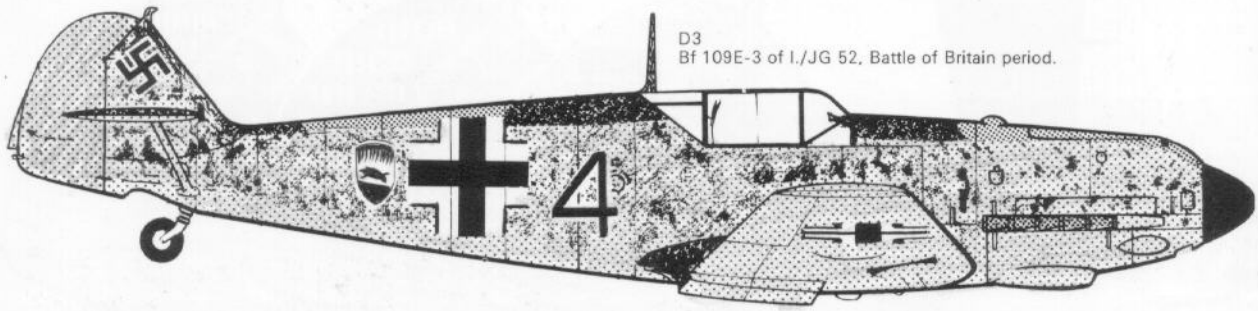
9./JG 26 "Schlageter".
Red with white details.

JG 26 "Schlageter".
Black on white shield,
black lining.

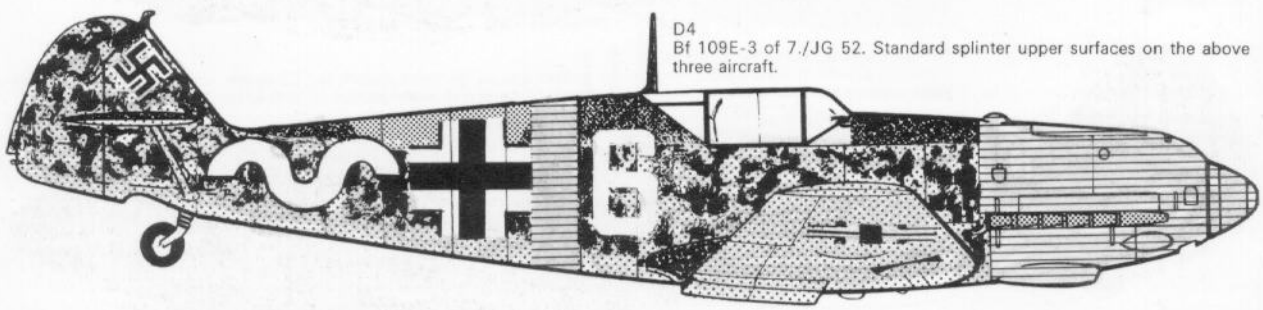
I./JG 52
Pale to dark blue sky,
red ground, black boar.

I./JG 52 variation.

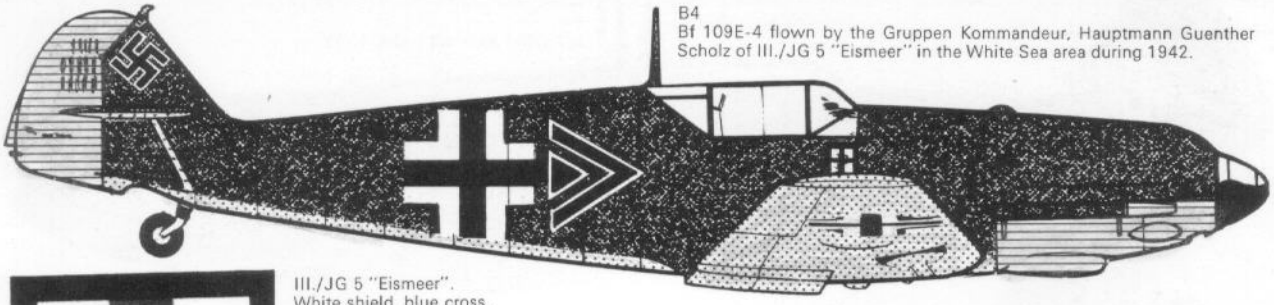
D3
Bf 109E-3 of I./JG 52, Battle of Britain period.



D4
Bf 109E-3 of 7./JG 52. Standard splinter upper surfaces on the above three aircraft.



B4
Bf 109E-4 flown by the Gruppen Kommandeur, Hauptmann Guenther Scholz of III./JG 5 "Eismeer" in the White Sea area during 1942.



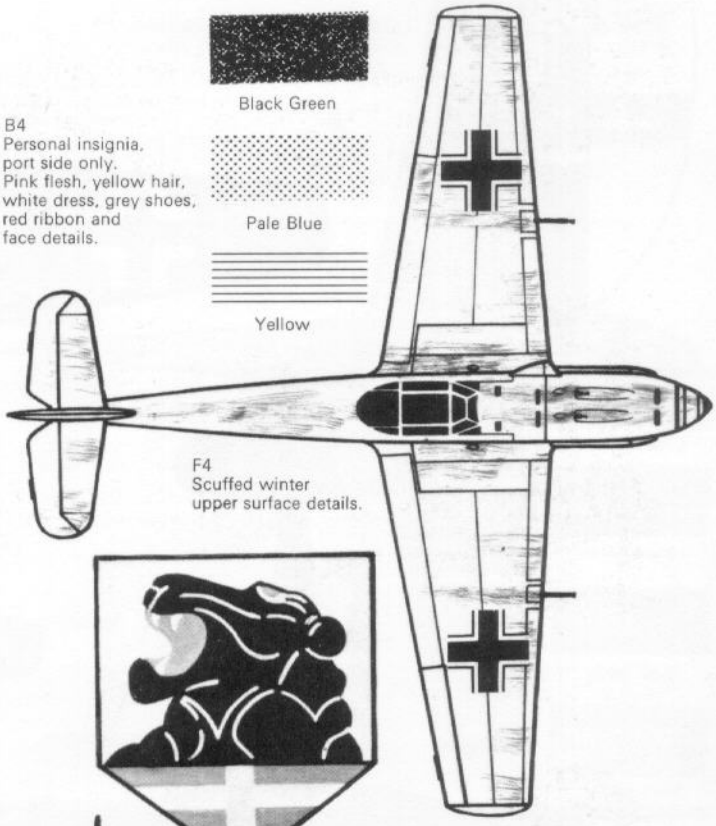
III./JG 5 "Eismeer".
White shield, blue cross, thick black outline to shield.
Brown Lapp boot with black details.

B4
Personal insignia, port side only.
Pink flesh, yellow hair, white dress, grey shoes, red ribbon and face details.

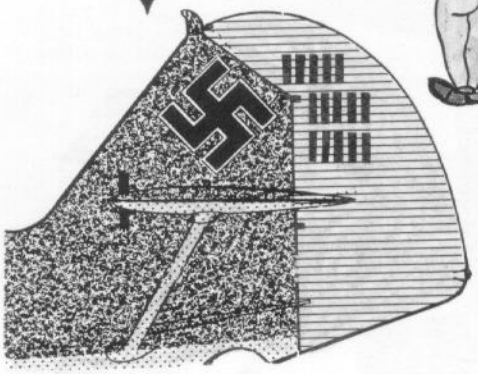
Black Green

Pale Blue

Yellow



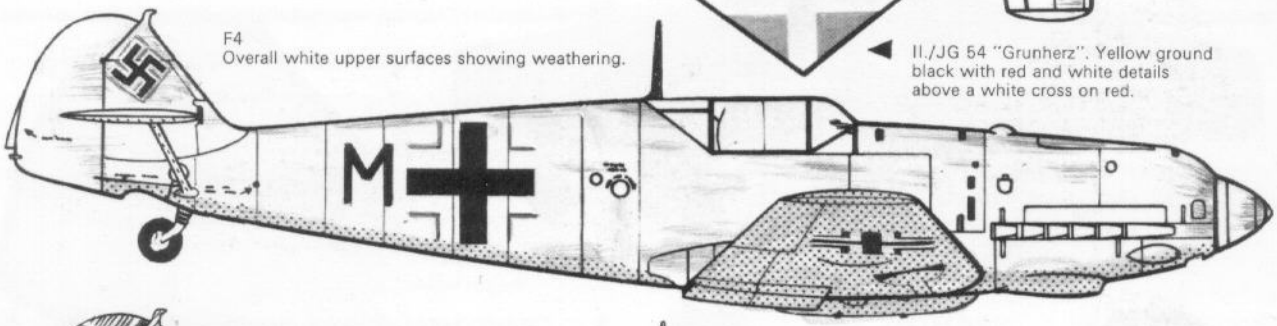
F4
Scuffed winter upper surface details.

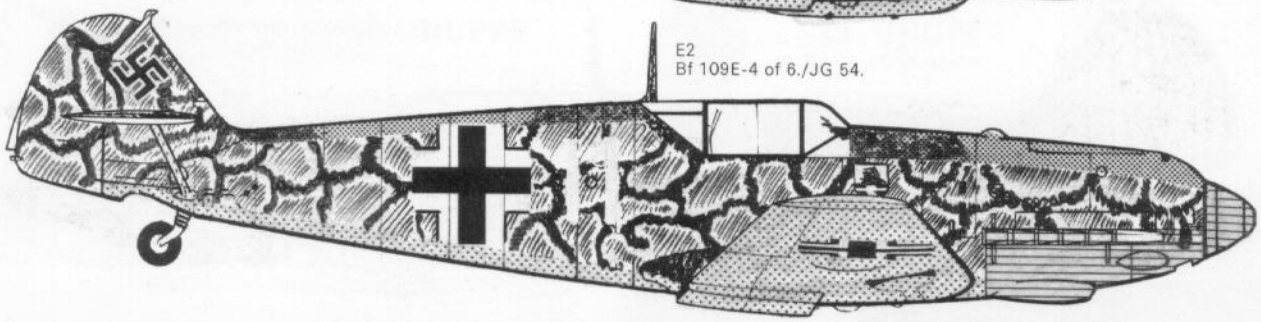


B4
Rudder details, black score markings on yellow.

II./JG 54 "Grunherz". Yellow ground black with red and white details above a white cross on red.

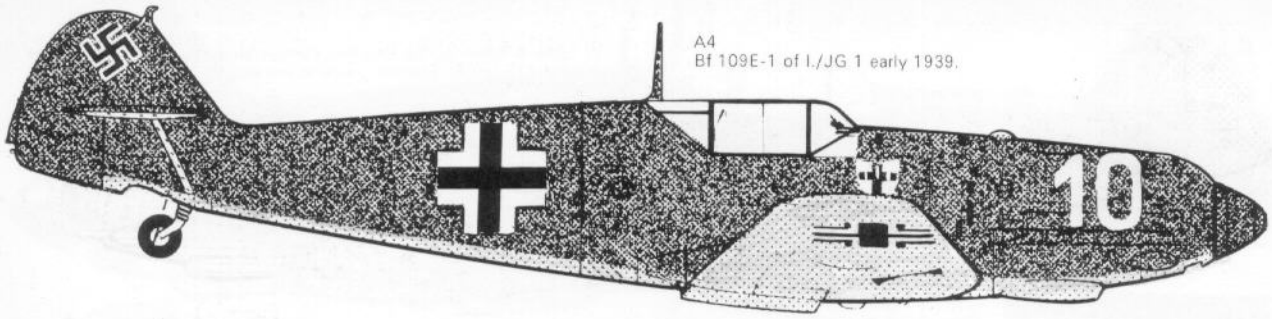
F4
Overall white upper surfaces showing weathering.

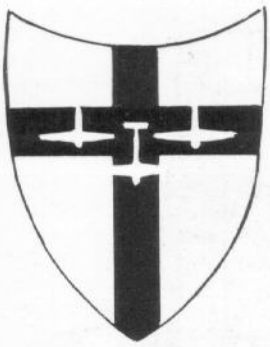




E2
Bf 109E-4 of 6./JG 54.

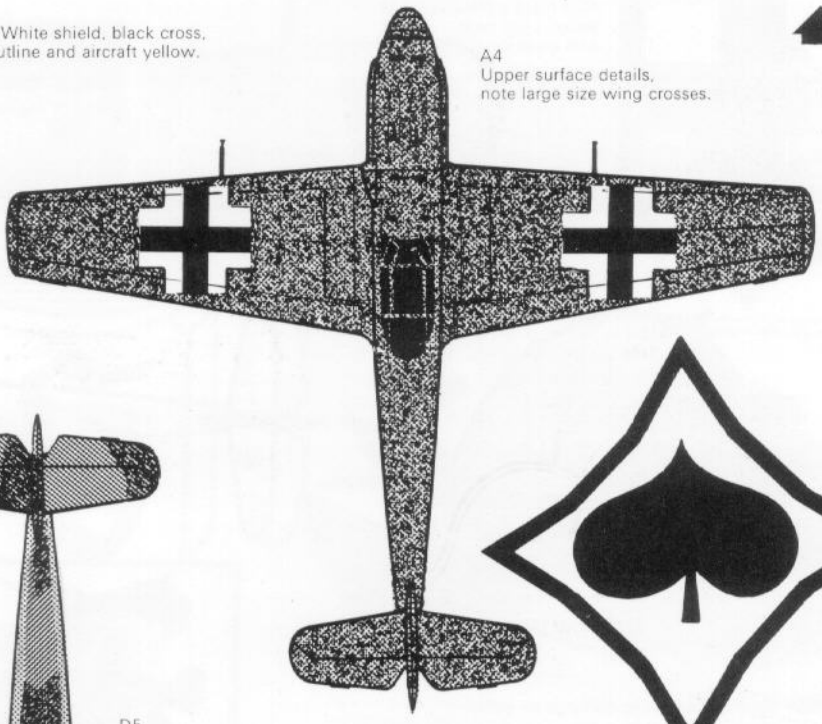
A4
Bf 109E-1 of I./JG 1 early 1939.





I./JG 1. White shield, black cross, shield outline and aircraft yellow.

A4
Upper surface details, note large size wing crosses.



Pale Blue

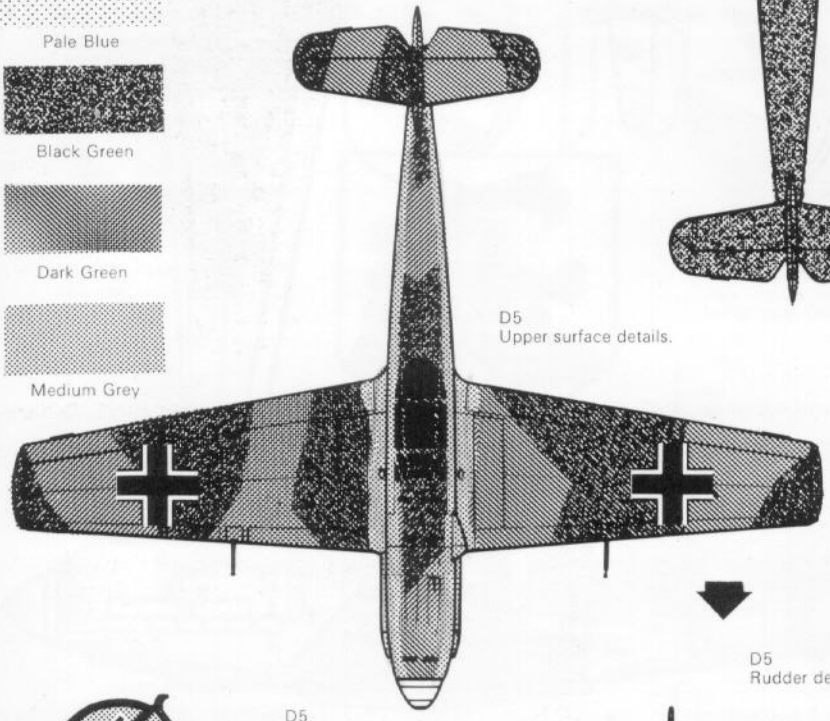
Black Green

Dark Green

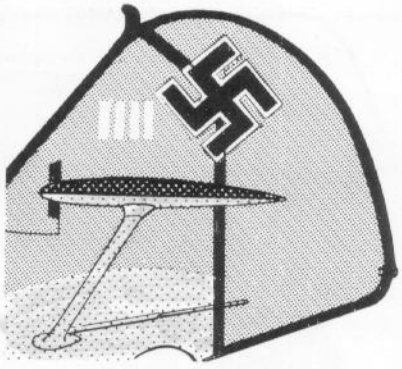
Medium Grey

JG 53 "Pik As". Black on white.

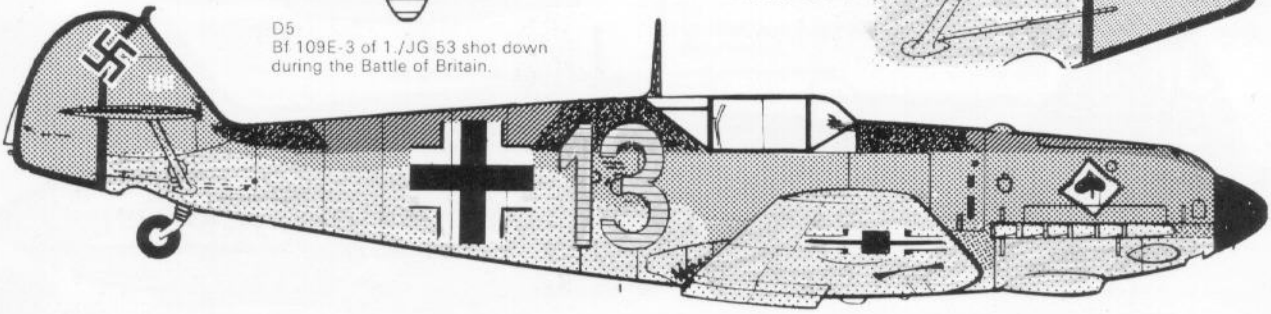
D5
Upper surface details.

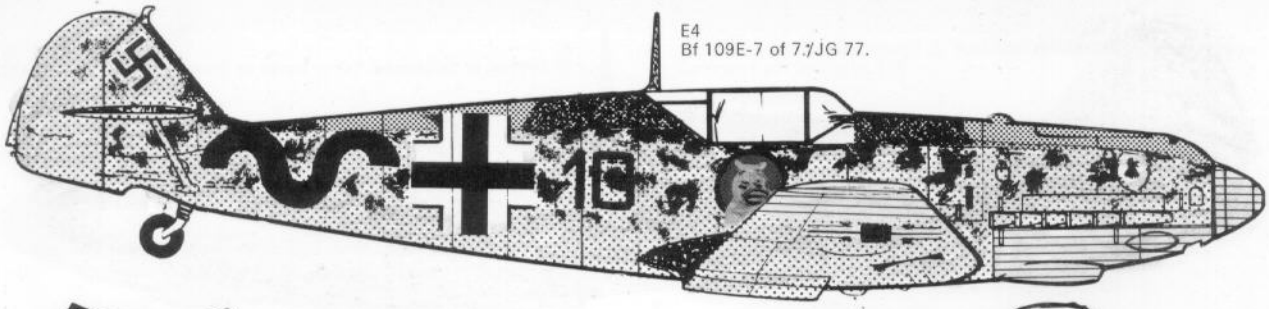


D5
Rudder details.



D5
Bf 109E-3 of 1./JG 53 shot down during the Battle of Britain.

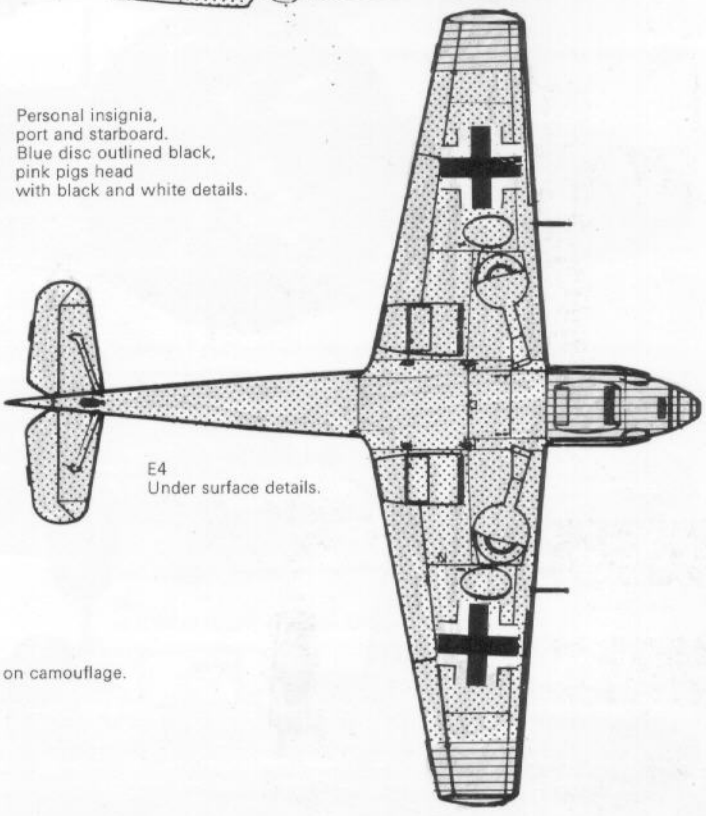




E4
Bf 109E-7 of 7./JG 77.

III./JG 77. White shield, black wolf head and shield outline, red and white details.

Personal insignia, port and starboard. Blue disc outlined black, pink pigs head with black and white details.



E4
Under surface details.

IV./JG 132. Black and white on camouflage.

GRUPPE IDENTIFICATION MARKINGS

NIL

I. GRUPPE

III. GRUPPE

Substituted for Squiggle in 1941 but Squiggle used by some units for the duration of the war.

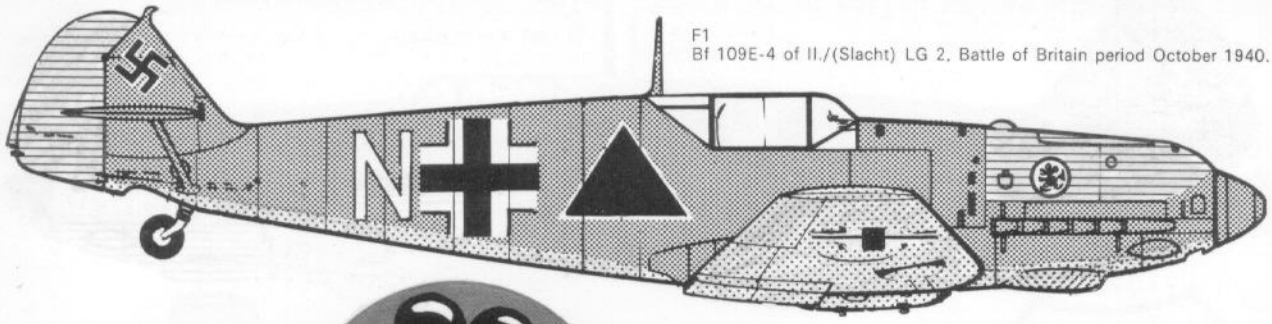
II. GRUPPE

IV. GRUPPE

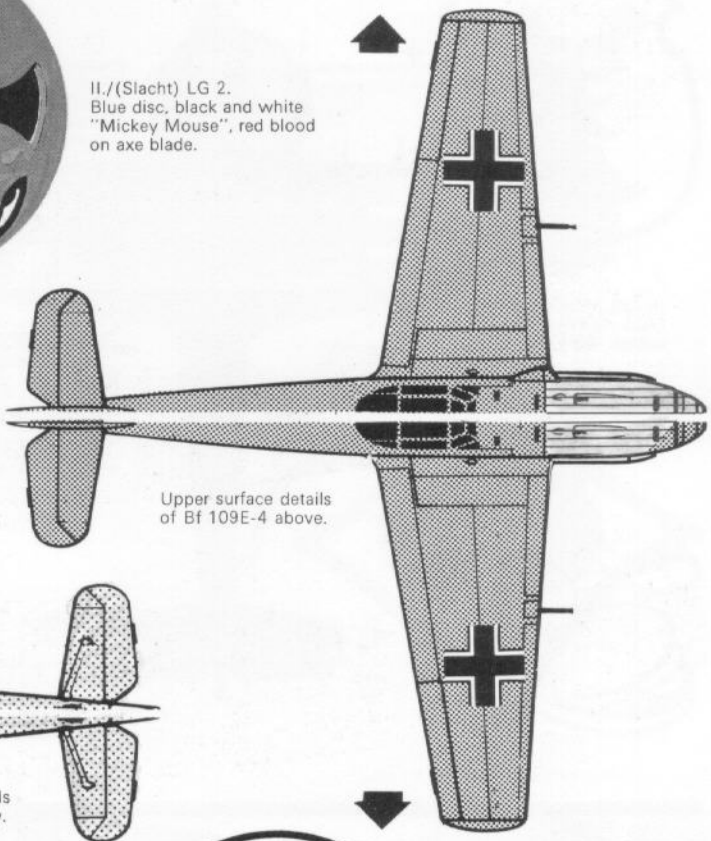
III. GRUPPE

IV. GRUPPE (Variant)

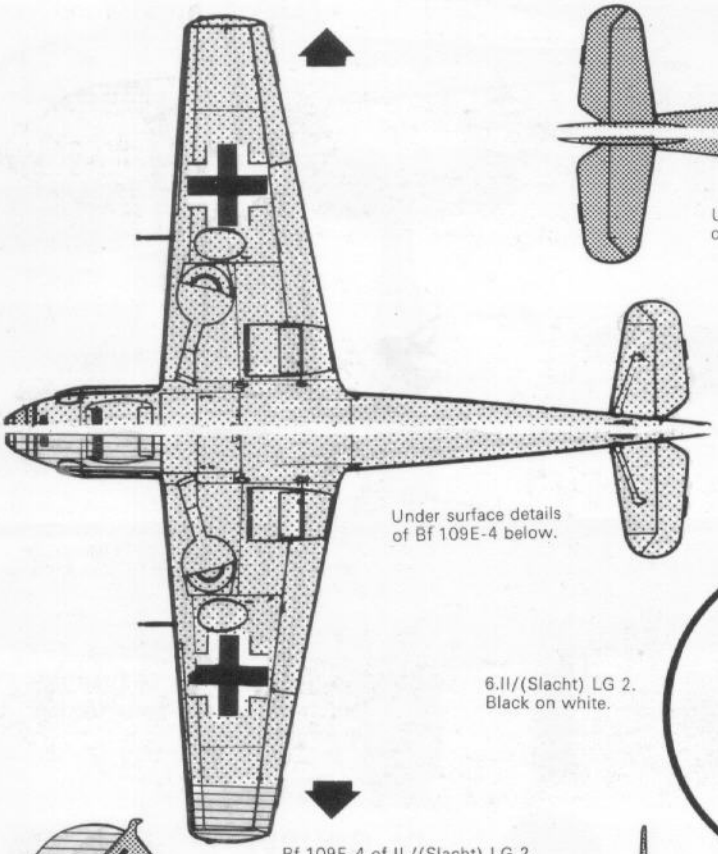
F1
Bf 109E-4 of II./(Slacht) LG 2, Battle of Britain period October 1940.



II./(Slacht) LG 2.
Blue disc, black and white "Mickey Mouse", red blood on axe blade.



Upper surface details of Bf 109E-4 above.



Under surface details of Bf 109E-4 below.

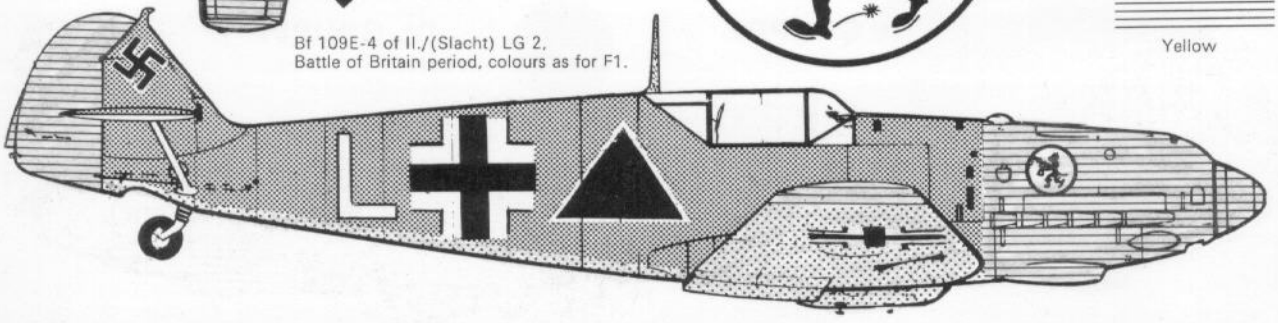
6.II/(Slacht) LG 2.
Black on white.

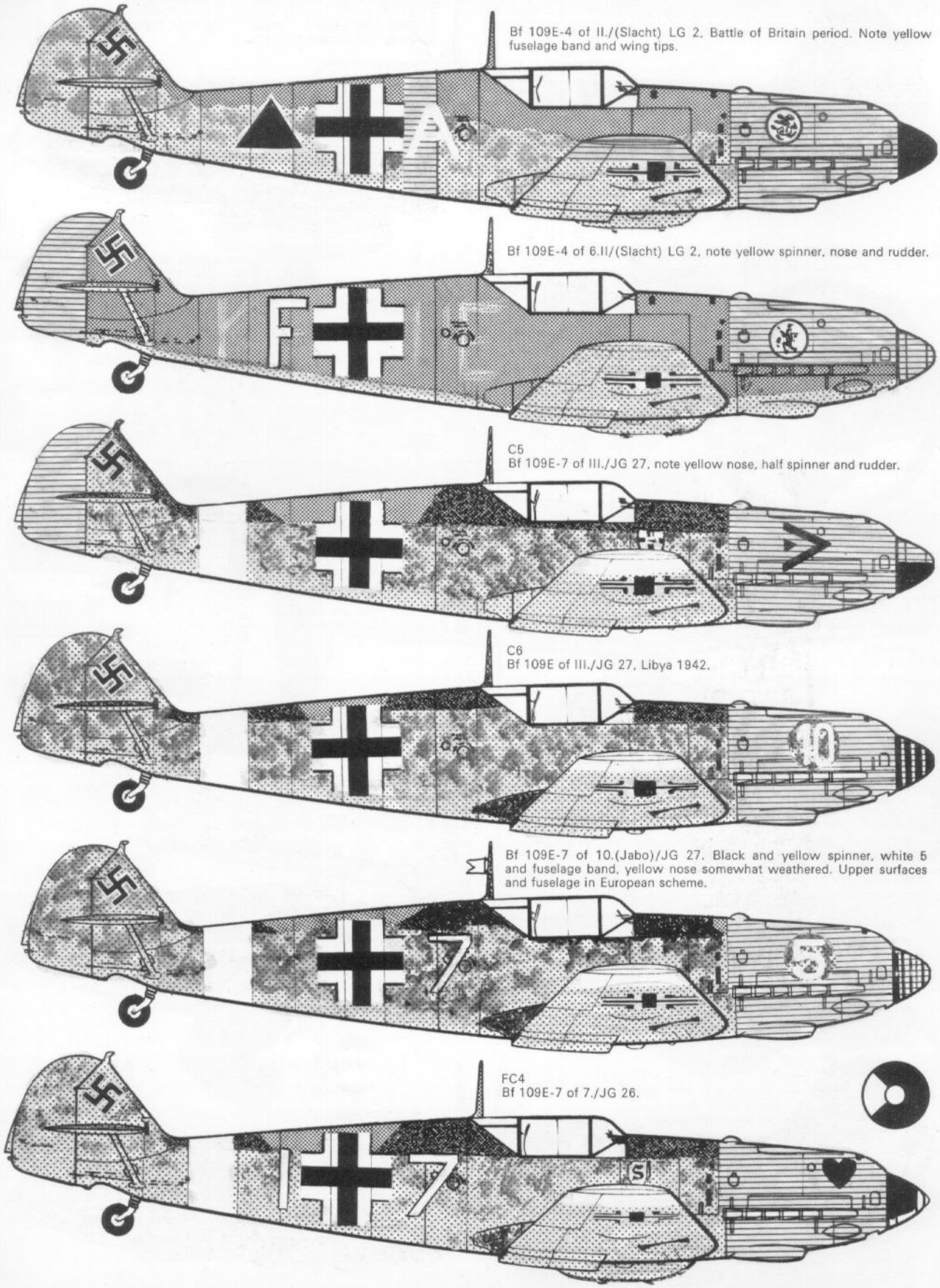
Medium Grey

Pale Blue

Yellow

Bf 109E-4 of II./(Slacht) LG 2,
Battle of Britain period, colours as for F1.





Bf 109E-4 of II./(Slacht) LG 2, Battle of Britain period. Note yellow fuselage band and wing tips.

Bf 109E-4 of 6.II/(Slacht) LG 2, note yellow spinner, nose and rudder.

C5
Bf 109E-7 of III./JG 27, note yellow nose, half spinner and rudder.

C6
Bf 109E of III./JG 27, Libya 1942.

Bf 109E-7 of 10.(Jabo)/JG 27. Black and yellow spinner, white 5 and fuselage band, yellow nose somewhat weathered. Upper surfaces and fuselage in European scheme.

FC4
Bf 109E-7 of 7./JG 26.

C1
Bf 109E-7 of I./JG 27. Yellow noses were apparently only used by JG 27 for a short period of time.

I./JG 27.

C1
Upper surface details, the size and density of the green splotching on the wings was usually similar to that on the fuselage.

C1
Under surface details.

Yellow

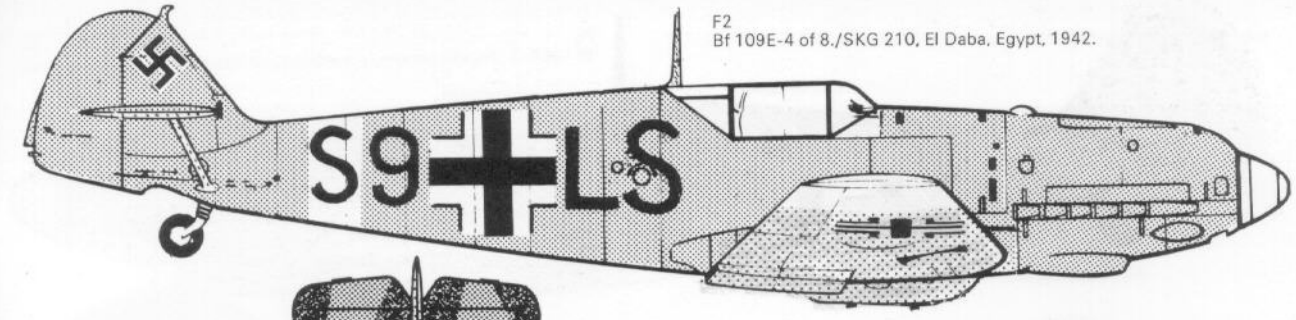
Red

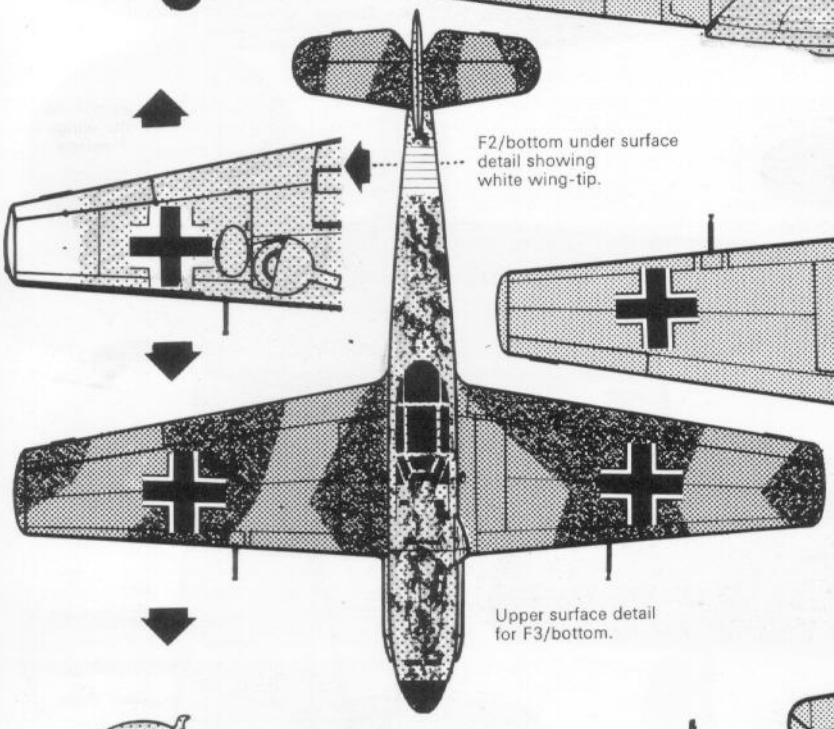
Dark Green on Sand

Pale Blue

Bf 109E-7s of I./JG 27.

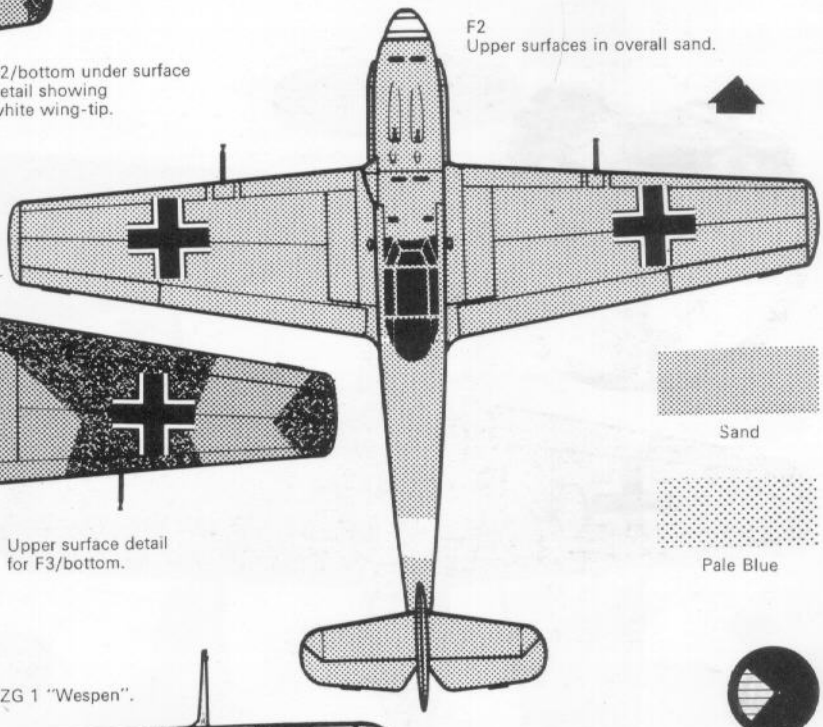
F2
Bf 109E-4 of 8./SKG 210, El Daba, Egypt, 1942.





F2/bottom under surface detail showing white wing-tip.

F2
Upper surfaces in overall sand.

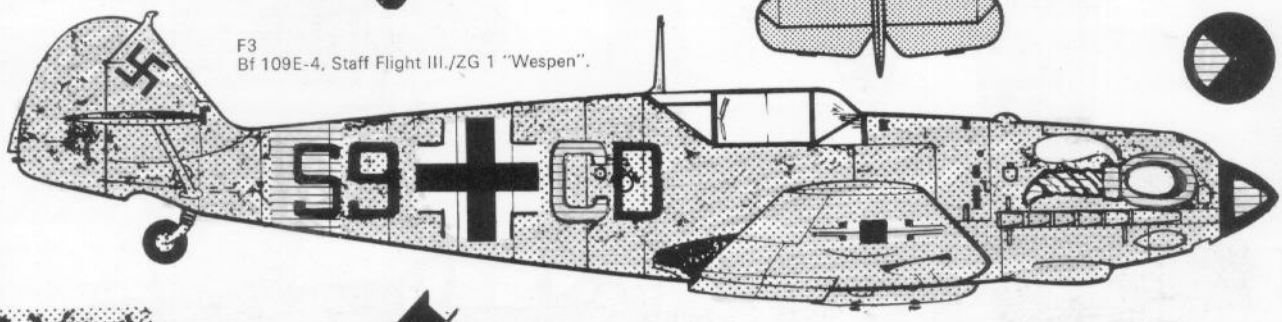


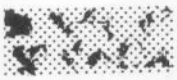
Sand

Pale Blue

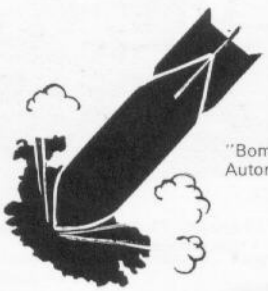
Upper surface detail for F3/bottom.

F3
Bf 109E-4, Staff Flight III./ZG 1 "Wespen".





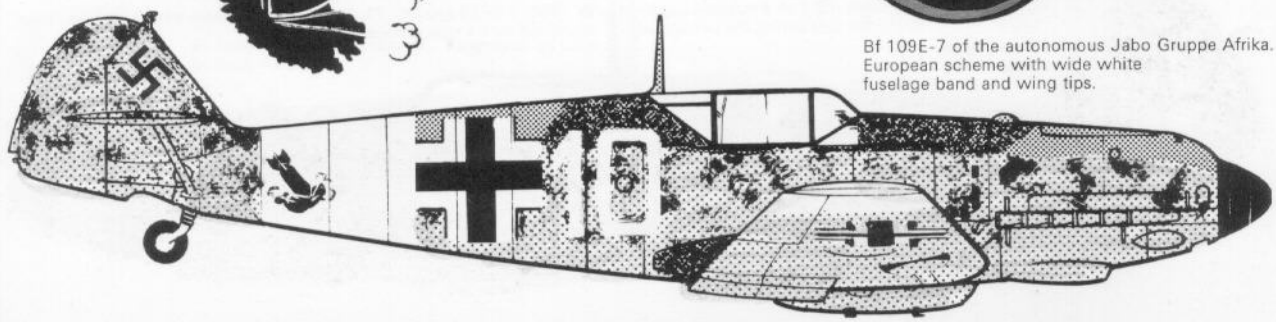
Grey dapple on Pale Blue

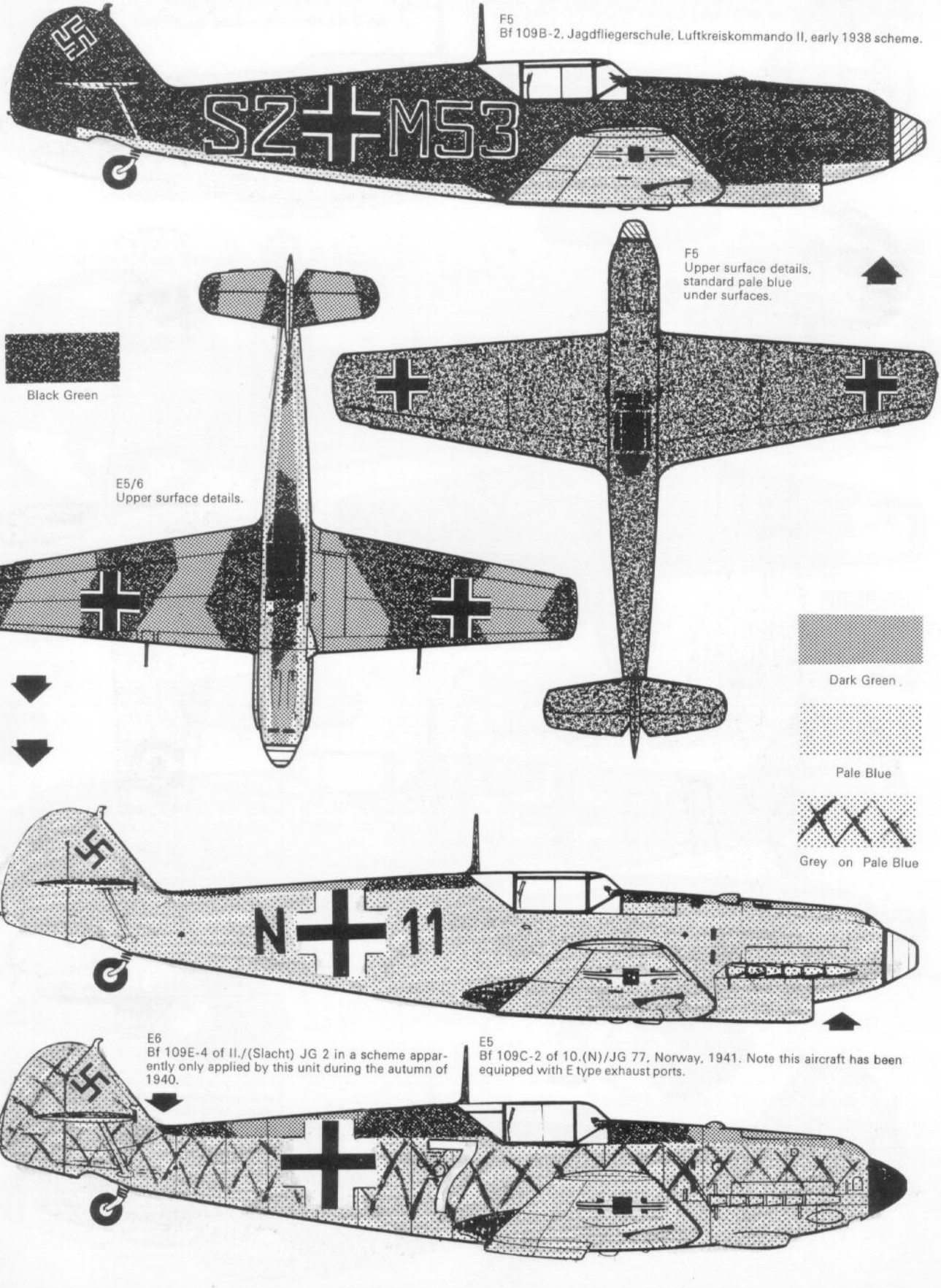


"Bomb over Malta".
Autonomous Jabo Gruppe Malta.

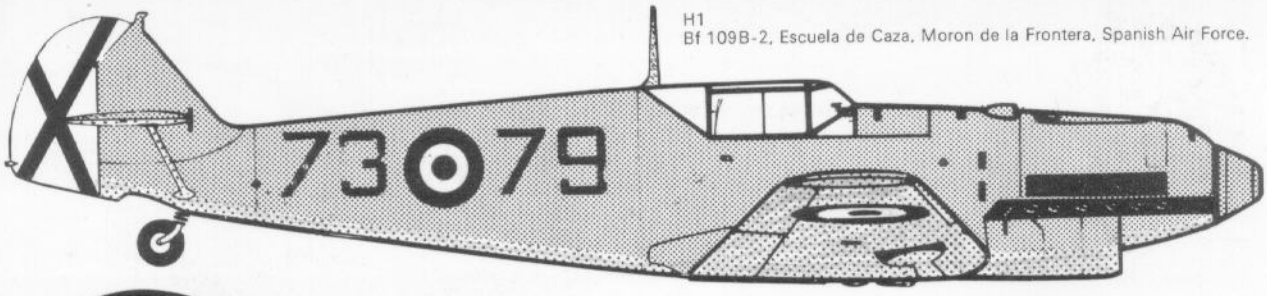
III./ZG 1 "Wespen".

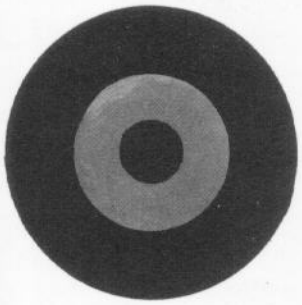
Bf 109E-7 of the autonomous Jabo Gruppe Afrika.
European scheme with wide white fuselage band and wing tips.




F5
Bf 109B-2, Jagdfliegerschule, Luftkreiskommando II, early 1938 scheme.
S2+M53
F5
Upper surface details,
standard pale blue
under surfaces.
Black Green
E5/6
Upper surface details.
Dark Green
Pale Blue
Grey on Pale Blue
N+11
E6
Bf 109E-4 of II./(Slacht) JG 2 in a scheme apparently only applied by this unit during the autumn of 1940.
E5
Bf 109C-2 of 10.(N)/JG 77, Norway, 1941. Note this aircraft has been equipped with E type exhaust ports.

H1
Bf 109B-2, Escuela de Caza, Moron de la Frontera, Spanish Air Force.

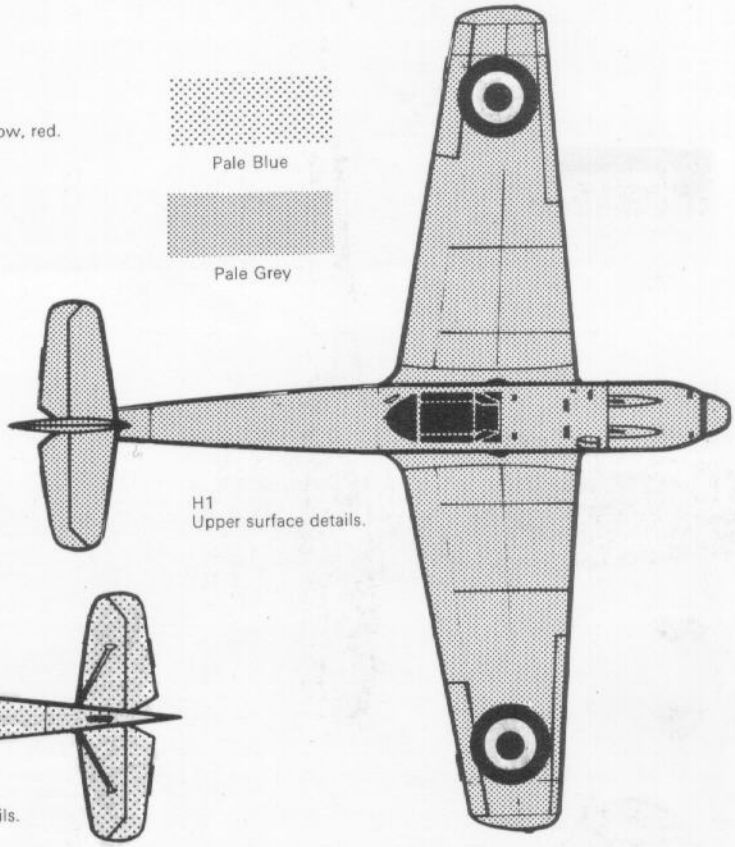




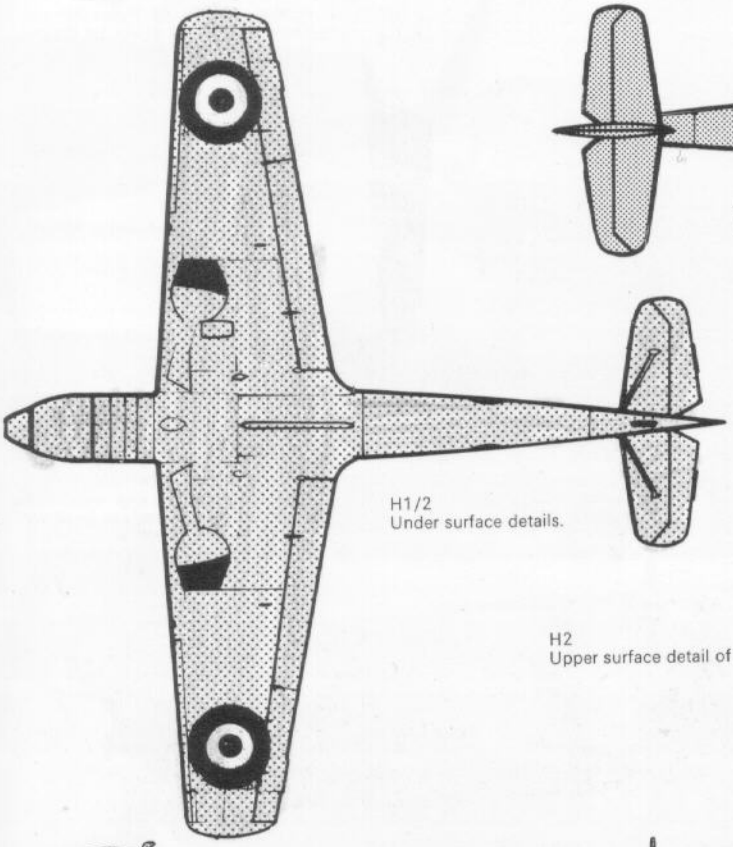
Spanish Air Force. Red, yellow, red.

Pale Blue

Pale Grey

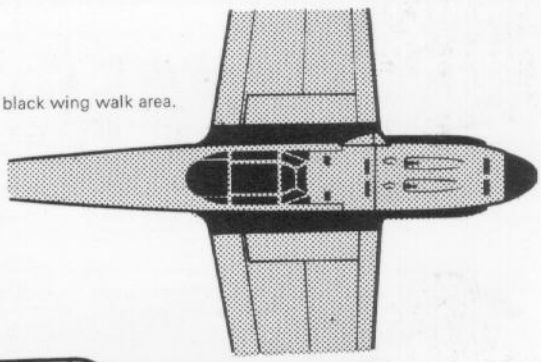


H1
Upper surface details.

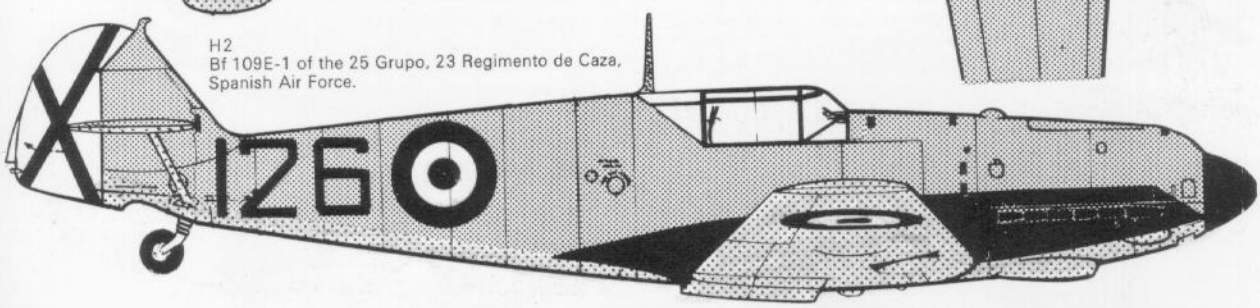


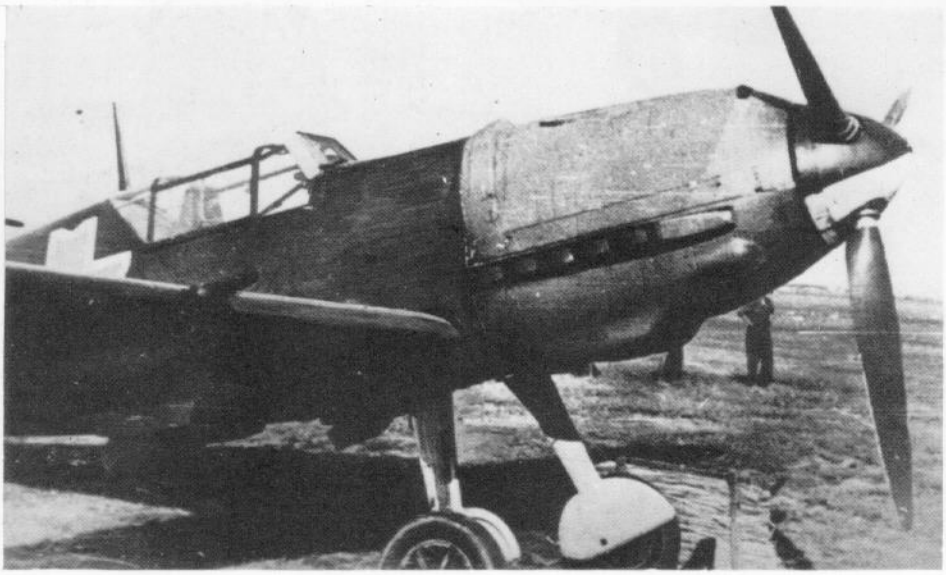
H1/2
Under surface details.

H2
Upper surface detail of black wing walk area.



H2
Bf 109E-1 of the 25 Grupo, 23 Regimento de Caza, Spanish Air Force.



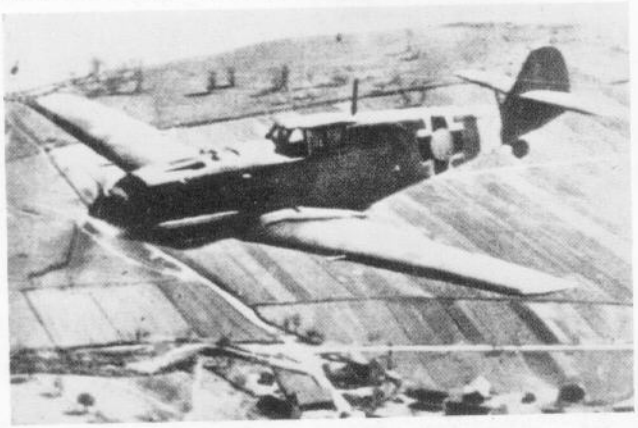


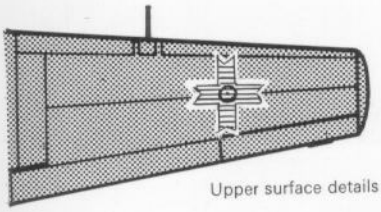
Above: A pair of Rumanian Air Force Bf 109E-4s of the 1st Fighter Group formating with a Luftwaffe aircraft. (R. Ward)

Left: A yellow nosed Bf 109E-4 of the Rumanian Air Force, the splinter scheme may be seen showing through the yellow.
(Moisescu Mihail)

Below: Bf 109E-4 with the legend in white on the cowl "Hai Fetito" (Up Little Girl). The dark round area under the wing appears to be where the original Luftwaffe insignia has been overpainted. (Moisescu Mihail)

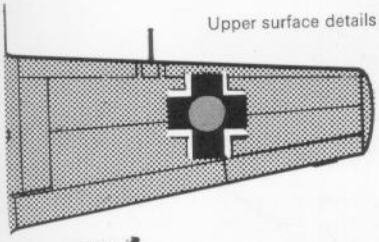
Above & right: Port and starboard shots of a Bf 109E-4 of the Slovakian Air Force. (Zdenek Titz)

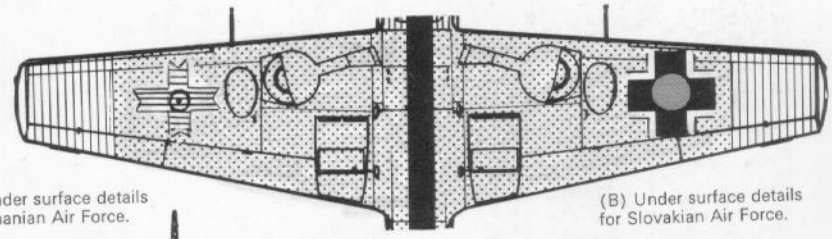




Upper surface details for G4.

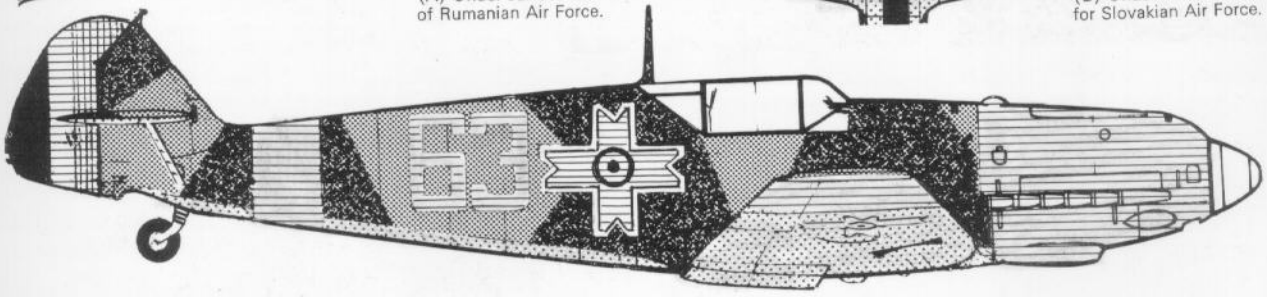
Upper surface details for G6.



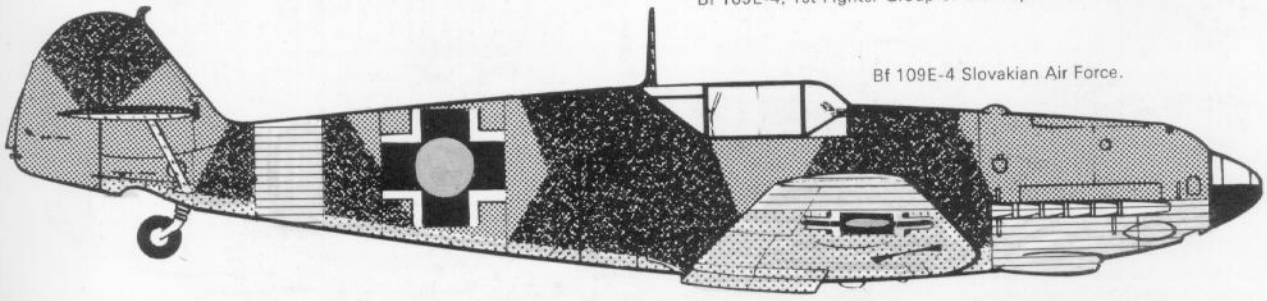


(A) Under surface details of Rumanian Air Force.

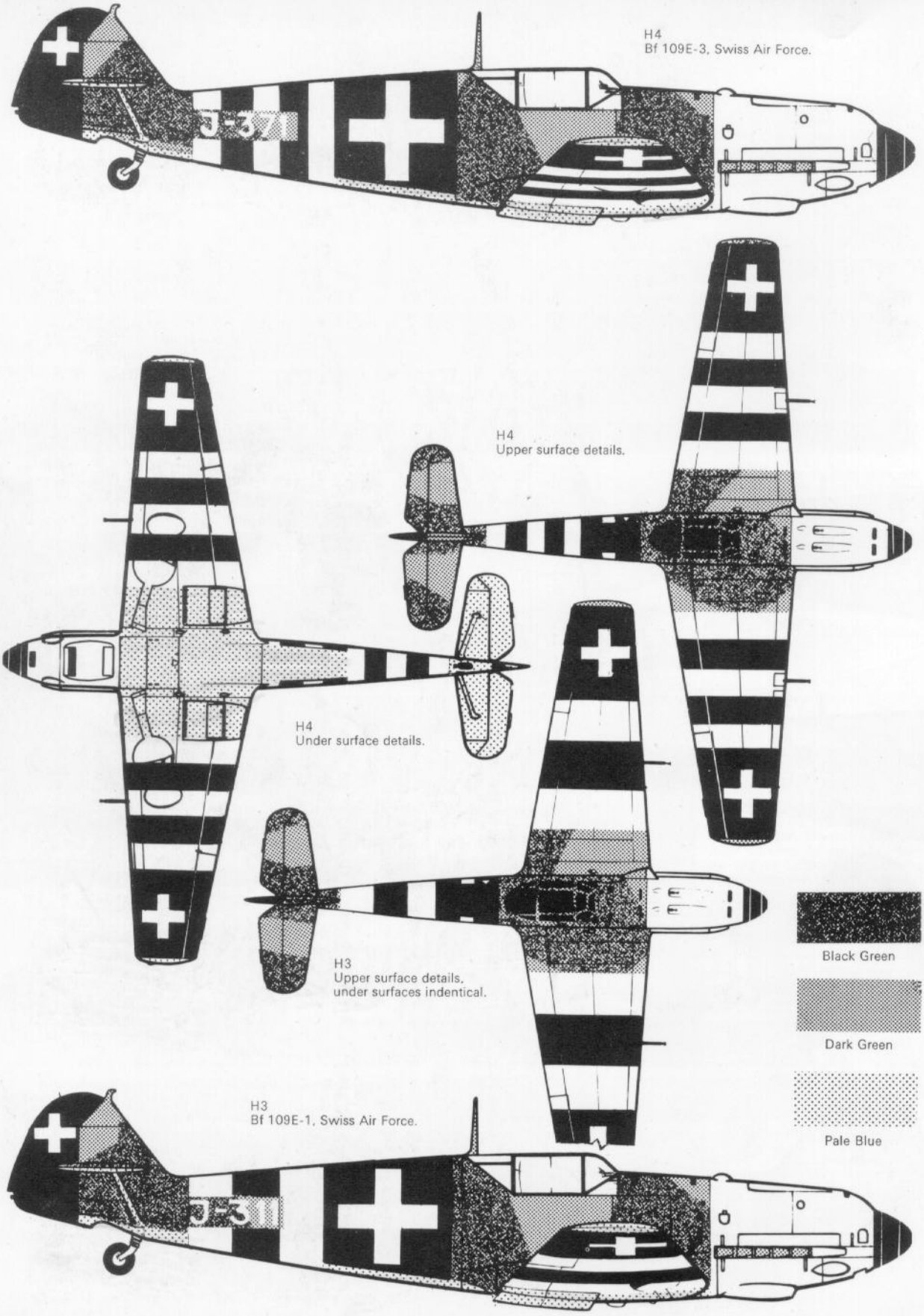
(B) Under surface details for Slovakian Air Force.



Bf 109E-4, 1st Fighter Group of the Royal Rumanian Air Force.

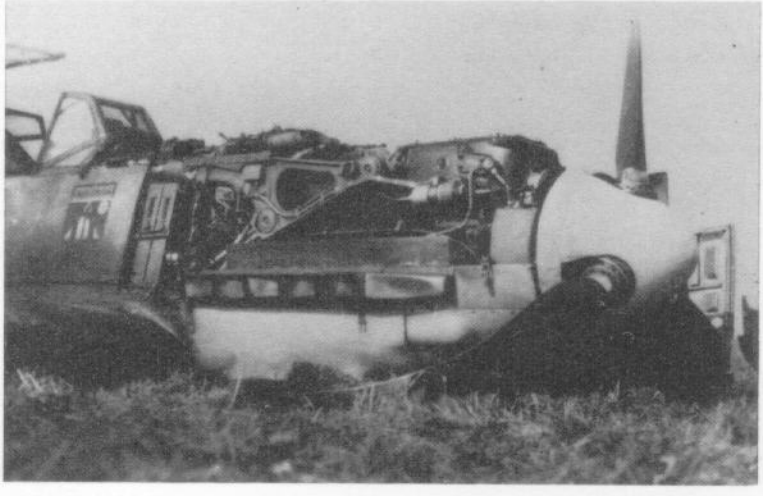


Bf 109E-4 Slovakian Air Force.


H4
Bf 109E-3, Swiss Air Force.
J-371
H4
Upper surface details.
H4
Under surface details.
H3
Upper surface details,
under surfaces indentical.
Black Green
Dark Green
Pale Blue
H3
Bf 109E-1, Swiss Air Force.
J-311

Above: Replacement Bf 109E-4s for JG 5 arriving on a Finnish airfield. (Hans Obert)

A Bf 109E-4 with overall white upper surfaces on a Russian airfield. (R. Ward)



A pranged Bf 109E-4 of Jagdfliegerschule 4, note school insignia under cockpit. (Hans Obert)

A Bf 109B of an unknown Fliegerschule in 1940 style camouflage, the white or yellow fuselage band with large numerals was standard on FTS aircraft. (Hans Obert)

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Netherlands East Indies Air Force

West German Luftwaffe

Front cover top to bottom:
Bf 109B-2, 2./J 88 Condor Legion, Spain 1937.
Bf 109B-2, II./JG 132 "Richthofen".
Bf 109E-1 flown by Major Helmut Wick, JG 2 "Richthofen" during the Battle of Britain.
Bf 109E-7Trop, 7./JG 26 "Schlagater", Libyan desert campaigns and the Eastern Mediterranean.

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